illumina®

NextSeq 1000/2000 Software Release Notes

NextSeq 1000/2000 Control Software 1.3.0
Universal Copy Service 2.4.1
Offline Installation Instructions

April 2021

INTRODUCTION

These Release Notes detail new features, improvements, and known issues for the NextSeq 1000/2000 Sequencing System Control Software for improved sequencing robustness. The software can be downloaded from the Illumina software download page.

For more information on the NextSeq 1000/2000, see the NextSeq 1000/2000 Sequencing System Guide (document # 1000000109376) available on the NextSeq 1000/2000 Sequencing System support pages.

The software package includes:
- NextSeq 1000/2000 Control Software 1.3.0

Release Notes for each individual DRAGEN for NextSeq 1000/2000 workflow can be found separately on the Illumina software download page.

NEXTSEQ 1000/2000 CONTROL SOFTWARE 1.3.0

NEW FEATURES

- Additional Proactive monitoring capabilities
- Enablement of selection of higher laser dosage for shorter runs (fewer than 55 cycles per read)
- Support for automatic configuration of dark cycle sequencing recipe for Illumina Stranded Total RNA and Illumina Stranded mRNA library prep kits
- Additional Service Software features
- Updated appearance of window that provides software update release notes
- Support for configuring connectivity via proxy server
- Ability to switch active DRAGEN versions during requeue or when a selected run requests a workflow from a different version
- Updated cloud software update feature
- Tool tips for Denature and Dilute Onboard Settings
- Updated error logs to be included in run folder Logs
- Data path robustness improvements
- Ability to download and install DRAGEN workflows from Control Software
- Updated DRAGEN workflow names:

Control Software Current Display	Control Software New Display	BaseSpace Sequence Hub Display
GenerateFASTQ	DRAGEN BCL Convert	Illumina DRAGEN BCL Convert
DragenGermline	DRAGEN-GATK Germline	Illumina DRAGEN-GATK Germline
DragenEnrichment	DRAGEN Enrichment	Illumina DRAGEN Enrichment
DragenRna	DRAGEN RNA	Illumina DRAGEN RNA
DragenSingleCellRna	DRAGEN Single Cell RNA	Illumina DRAGEN Single Cell RNA

BUG FIXES

- Improvements to Imaging Module robustness
- Improvements to Cartridge Interface Module robustness
- Improvements to DRAGEN License Update in Offline Mode
- Improvements to error messaging when selecting a cloud run when genome is not installed
- Improvements to cartridge ejection workflow
- Improvements to settings menu when an output folder is not specified but is required
- Ability to leverage first recipe in Pre-Run Checks for any subsequent Pre-Run Checks without requiring software to be restarted
- Improvements to the output folder connectivity check
- Network Connectivity System Check no longer occurs for a non-ICA supported region
- Process management list now auto-scrolls when showing detailed run info
- Improvements to Genome List
- Improvements to error messaging
- Improvements to sample sheets and zip files to recognize upper and lowercase extensions

INSTALLATION INSTRUCTIONS

Please follow all steps below for a successful software installation. Note that if you are installing new DRAGEN workflows, reference the following documents:

- 1000000160948 v00
- 1000000161658 v00
- 1000000161663 v00
- 1000000161664 v00
- 1000000161665 v00
- 1000000161666 v00

NOTE: Upgrading to v1.3 Control Software requires v1.2 software to be installed. If v1.1 software is currently installed, first upgrade to v1.2 software following the instructions found in the v1.2 software release notes.

PREPARATION

* **These instructions are intended for the v1.3 Control Software upgrade only.**

1. The total installation time (not including file download times) may take up to 20 minutes.
2. Make sure that you have the password to the ilmnadmin account.
3. To log in to the ilmnadmin account:
   a. If you are already logged in as ilmnuser and in control software, select the control software menu, and then select **Exit Application** to access the desktop.
   b. Select the power button icon in the upper right corner and log out of ilmnuser.
   c. After you are on the login screen, select ilmnadmin, and then enter the password to log in.
   d. The control software automatically launches once you are logged in.
4. The upgrade installation files require up to **3 GB** of free space on your desktop. See file sizes below.
   a. To access your desktop, select the control software menu in the control software, and then select **Minimize Application**.

![illumina]

      b. Delete or transfer files off the desktop that are not needed.

      c. Empty trash to free space from the drive.

           i. Select **Applications**, and then **Files** from the upper left corner of the desktop to launch the file explorer.

          ii. On the left panel of the file explorer, right click the Trash icon and select **Empty Trash**.

5. Launch Chromium to download the software upgrade installers from the Illumina Support Site.

      a. While in desktop view, open the Applications menu on the upper left corner. Select **Internet**, and then select **Chromium**.

           i. **Note: After launching Chromium, you may receive a prompt to unlock your login keyring. You can safely ignore and cancel out of the prompt.**

      b. Use Chromium to browse to the NextSeq 1000 and 2000 Software Downloads page on the Illumina Support Site.

6. Download the following software upgrade installers from the Illumina Support Site and save them to the desktop. **Do not extract these files; leave them as .tar.gz.**

      a. For offline customers:

           i. v1.3 SW Suite Installer (1 GB)

7. After the files have finished downloading to the desktop, maximize the control software by selecting it from the toolbar.

        8. To begin installation, follow the the "Offline Installation" steps.

OFFLINE INSTALLATION

* Follow the "Preparation" steps outlined above before continuing. Please note that online installation is not available for this release, but will be available for the version 1.4 release.

1. **Install SW suite**

      a. Launch control software

          o Open control software menu.

          o Select **Software Update**.

          o Select **Choose...** under **Browse for Software Update**.

          o Navigate to the desktop and select the installer

          o Select **Update Now**.

      b. Follow the password and other prompts.

      c. When the installation process completes, you will see a message that confirms installation. After closing the prompt, the control software automatically relaunches.

      d. Follow the prompt for the firmware update.

          o **Note: During this process, the screen will go blank. Wait for the image to return and the process to complete. If the image does not return after 5 minutes, proceed to the next step to manually toggle the power switch.**

      e. Follow the prompt to power cycle the instrument.

          o **Note: Make sure to toggle the power switch at the bottom of the instrument to complete the power cycle after the instrument shuts down.**

      f. Confirm that version is updated in the **About** screen in the control software menu.

2. **Final steps**
   a. After installation completes, delete all the downloaded installation files from the desktop and empty the trash to save space.
   b. Log back into ilmnuser to begin sequencing.

RESOLVED ISSUES

N/A

KNOWN ISSUES

- During the software suite installation, the screen may remain blank after the firmware upgrade process. If the image does not return after 5 minutes, proceed to toggle the power switch and continue.
- The following message may appear and prevent software suite installation from starting: "Update cannot continue because the following actions are currently in progress: data file copy." This indicates that a file transfer is currently in progress. If this issue persists after file copy is complete, please contact Illumina Technical Support.
- Upon successful completion of the software update, an error message stating: "An unexpected error has occurred with system integration. Power cycle the instrument per system guide instructions and retry" may appear. If the software says that the update is successful, restart the application, and the error will no longer appear.