MiSeqDx Software System v2

Release Notes

MiSeq Operating Software (MOS) 2.2.4.3

MiSeqDx Recipes 3.1.0.0

Local Run Manager 1.4.5

RTA 1.18.54.3

RTA 1.16.18.2

Run Copy Service 1.0.14.0

BaseSpace Broker 2.9.1.2

Dx Reference Genomes 2.0.0.0

For MiSeq™ Dx Instruments

DATE 06-DEC-2017

Introduction

These release notes detail the key changes to software components for the MiSeqDx system.

Software Name	Version	
	v1	**v2**
MiSeq Operation Software (MOS)	1.1.7.0	2.2.4.3
Illumina Worklist Manager (IWM)	1.0.19	Replaced by LRM
User Management System (UMS)	1.0.0.6	Replaced by LRM
MiSeq Reporter (MSR)	2.2.31.1	Replaced by LRM
Real-Time Analysis (RTA)	1.16.18	1.16.18.2 1.18.54.3
BaseSpace Broker	2.0.12195.16151	2.9.1.2
Reference Genome	1.1.0.0	2.0.0.0
MiSeq Dx Recipe Fragments	1.0.0.0	3.1.0.0
Local Run Manager (LRM)	N/A	1.4.5.0
Run Copy Service	N/A	1.0.14.0

This update must be installed by Illumina personnel and is included in all newly manufactured MiSeqDx instruments.

For more information about the MiSeqDx instrument and how to use the software included with it, please see the product and support pages at illumina.com

https://www.illumina.com/systems/sequencing-platforms/miseqdx.html

https://support.illumina.com/clinical_support/clinical_instruments/miseqdx.html

I.   MiSeq Operating Software (MOS) v2.2.4.3

NEW FEATURES:

- Full integration with Local Run Manager for user management and permissions, part number validation, and secondary analysis.
- Run selection screen to show new and active runs available for sequencing.
- Only support log files are now in Manage Files.
- Removed screen to select sample sheet. Run creation is managed in Local Run Manager.
- Option to send instrument health information to Illumina to aid technical support.
- Option to automatically start a run after pre-run checks.
- Force post-run wash when booting from RUO to DX mode.

- Support for manual entry of Lot Number and Expiration Date for all consumables.
- Removed Live Help button.
- Increased upper limit from 500 to 1000 for maximum number of cycles for Q30 percentage calculation.
- Chiller temperature check added to Pre-run checks.
- Chiller temperature check during sequencing warns the user if it goes out of range.
- Ability to set output folder from MOS.
- Ability to preview samples in Select Run page.
- Support for Post run template line wash.
- Requires template line wash before sequencing for workflows that specifies template line wash as mandatory.
- Updated chiller temperature spec range from 1 – 30 degrees Celsius to 2 – 11 degrees Celsius.
- Ability to support custom primers.
- Sample sheet written to temp folder before starting RTA.
- Fixed wording of wash instructions on screen.

DEFECT REPAIRS:
- Fixed issue where Next button was enabled when flow cell clamp is open.
- Fixed cosmetic issue with misalignment of Reboot to RUO button during button press.
- Mitigated FPGA start up race condition caused by SSD drive speeds that could lead to black screen.
- Fixed rare race condition where tile images could be swapped.
- Updated Best Focus Z Position to 0.165 +/- 0.03 from 0.15 +/- 0.05 in diagnostic test to prevent focusing on bottom surface thiniing it is at the top surface.
- Display user friendly error message if recipe file is missing.
- Fixed rare race condition where focus tile image written out to the imaging folder instead of scan image, causing RTA to hang.

KNOWN ISSUES:
- Standby wash warning is always displayed when user boots back to the DX side from RUO.

II.   MiSeqDx Recipes 3.1.0.0

NEW FEATURES:
- Added VeriSeq recipe.
- Added Amplicon V1 line and standby washes.
- Added Post-run template line wash.

- Updated with Amplicon's configurable index length.

DEFECT REPAIRS:

- None

KNOWN ISSUES:

- None

III. Local Run Manager 1.4.5

- Initial release of new software framework that provides on-instrument integrated solution for:
    - User Management
    - Run Creation
    - Integration of modules for analysis of sequencing data
    - View Results

KNOWN ISSUES:

- Officially supported Chromium browser version 43.0.2357.0 is not compatible with Windows 10. For users running Windows 10, the recommended browser for accessing Local Run Manager outside of the instrument is Chrome version 55 or higher.
- Rare instances when Run Dashboard elements collapse to the left side. Hard browser refresh resolves the issue.

IV. RTA v1.16.18.2

NEW FEATURES:

- Added support for parallel installation of multiple versions of RTA to support different module workflows. This version is used by the Cystic Fribrosis modules.
- Integration with Local Run Manager to automatically start secondary analysis once RTA is complete.

DEFECT REPAIRS:

- None

KNOWN ISSUES:

- None

V. RTA v1.18.54.3

NEW FEATURES:

- Added support for parallel installation of multiple versions of RTA to support different module workflows. This version is used by the Germline Variant and Somatic Variant modules.

- Integration with Local Run Manager to automatically start secondary analysis once RTA is complete.

DEFECT REPAIRS:

- None

KNOWN ISSUES:

- None

VI.   BaseSpace Broker 2.9.1.2

NEW FEATURES:

- Added support for instrument analytics of non-run diagnostic files.
- Added new application configuration file in order to support newer AWS data centers, such as in EMEA region.
- Configured the Windows Service to auto-restart on failure.

DEFECT REPAIRS:

- Fixed a condition that could cause the Broker Windows Service to hang attempting to start.

KNOWN ISSUES:

- None

VII. Dx Reference Genomes 2.0.0.0

NEW FEATURES:

- Installation directory was changed from C:\Illumina\MiSeq Reporter\Genomes to C:\Illumina\Genomes.
- Only Homo sapiens genome is included in new release.
- Homo sapiens genome.fa now includes PAR-masked regions on the Y chromosome.
- Annotation files added to support Nirvana annotation.
- Move files dbsnp.txt and RefGene.txt to new paths.
- Remove unneeded files.

DEFECT REPAIRS:

- None

KNOWN ISSUES:

- None

VIII. Run Copy Service 1.0.14.0

- No changes were made to this application in this release.