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MiSeqDx System Software
Customer Release Notes

MiSeqDx System Suite Installer (SSI) v4.1.1

MiSeq Operating Software v4.1.1

Local Run Manager Framework v4.1.0

Universal Copy Service v2.7.4

For MiSeqDx

November 14, 2023

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Title: MiSeqDx Software v4.1.1 Customer Release Notes
Part Number: 20110679
Document Number: 200049117 Rev.00
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Introduction

These Release Notes detail the v4.1.1 software new features, improvements, and resolution to Illumina Local Run Manager and Universal Copy Service cybersecurity vulnerabilities for the MiSeqDx Sequencing System. This software release is only compatible with Windows 10 operating system and is not backwards compatible with Windows 7. Note, this is a mandatory software update from MOS v4.0.3.

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

The software release also includes critical security updates to Windows 10 to bring the OS up to the current best configuration and reduce risks of cybersecurity vulnerabilities. Please follow the operating system update guidelines found in all system site prep guides and review Illumina's Best Security Practices to keep your instrument secure.

For more information about the MiSeqDx instrument and how to use the software included with it, 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

If you are upgrading from a version prior to MiSeqDx System Suite v4.0.3, please review the release notes for a list of features and bug fixes introduced in that version.

I. MiSeqDx System Suite (MSSI) v4.1.1

Software Application	Version
MiSeqDx System Suite Installer	4.1.1 *
MiSeqDx Operating Software	4.1.1 *
Local Run Manager	4.1.0 *
Universal Copy Service	2.7.4 *
MiSeqDx Recipe Fragments	4.1.1 * Note: This change is only to the version number. It does not have impact to functionality or integration.
Real-Time Analysis (RTA)	1.16.18.2 1.18.54.3
Diagnostic Configuration	4.1.1 *
Addition of SONY Xilinx Artix7 FPGA DLL files	N/A

Indicates change from previous release

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II.   MiSeqDx Operating Software (MOS) v4.1.1

NEW FEATURES:

- LRM update from 3.1.0 to 4.1.0
- UCS update from 2.5.0 to 2.7.4
  - Limit UCS only to listen on localhost
- Launching Control Software with Elevated Privilege
- Implement System Manifest to ensure the compatibility of the software versions during initialization
- Remove the option for LRM uninstallation from MiSeq SSI
- DX LRM Password Update Warning
- Proactive data shall report all illumina SW components
- SSI & LRM, Instrument, and Mode Must Match to Perform Install
- Control Software to update LRM map connection client library

FIXED ISSUES:

- Remove Initialization Lag to fix the issue of MOS not launching when Proactive is enabled but not accessible
- Fix consistency for RunParameters.xml to help identify run types, Miseq SW version, and LRM modules
- Proactive to capture instrument Power On/ Power Off event
- Displays empty list if initialization fails and acknowledge the error(s)
- MiSeq Self-Service Override Code on MiSeqDx
- Proactive Settings Tool Tip Textbox

KNOWN ISSUES:

   N/A

III.   Local Run Manager

NEW FEATURES:

- Enhanced LRM authorization
- Enhanced security configurations
- Local Run Manager will prompt users to set Database Backup Secret (password). Backup will not complete until that password is set

- Bundled supported Chromium browser v108
    - o Note: Accessing Local Run Manager locally on instrument or remotely from the same local network as the instrument via an unsupported browser or version is allowed after user acknowledgment. Using unsupported browser and version may result in loss of some Local Run Manager User Interface functionality
- Password expiration setting is required in Local Run Manager. Default password expiration period is set to 90 days. User can set to a maximum of 180 days
- Service accounts can be configured for Analysis Service, Job Service and Universal Copy Service individually
- Updated Local Run Manager's component version:
    - o Postgres to v13.3 (previous version has been end of life
    - o RabbitMQ to v3.8.17 (previous version has been end of life)
    - o Erlang OTP to v24.0 (12.0) (it is a dependency of RabbitMQ v3.8.17)
    - o jQuery to v3.6.0 (includes patches for security vulnerabilities)

FIXED ISSUES:

- Addressed Unauthenticated Remote Command Execution vulnerability
- Restored remote access to Local Run Manager from the same local network as the instrument. This functionality was disabled by Local Run Manager Software Patch v1.0.0

KNOWN ISSUES

- Pinned shortcut name on taskbar is not 'Local Run Manager'

MODULE UPDATES

- For MOS v4.1.1 Local Run Manager compatible modules, refer to the Local Run Manager Module Selector page: https://customprotocolselector.illumina.com/selectors/LRM-module-selector/Content/Source/FrontPages/LRM-module-selector.htm

Release History

Revision	Release Reference	Originator	Description of Change
00	1096359	M. Nguyen	Initial Release