BaseSpace Onsite Platform

Release Notes

For BaseSpace Onsite Image v2.0 and Upgrade Package v2.0

May 26, 2015

Introduction

These release notes detail the key changes to the BaseSpace Onsite (BSO) operating system and software components since the package containing BSO v1.2. If you are upgrading from a version prior to BSO v1.2, review the release notes for BSO v1.2 for a list of requirements, features, and bug fixes in that version.

The update to v2.0 must be completed by a trained Illumina staff person. Data on the BaseSpace Onsite will be preserved through this software update. To enable BSO functionality with the HiSeq 2500 the HiSeq Control Software must be updated to 2.2.68 or later.

This is an optional, but strongly recommended software update. This update should be installed if the customer wants to add any of the additional features and functionality listed below.

Please note, prior versions of the software will not be "patched" or otherwise improved upon, except under extreme or special circumstances. This is to ensure that customers understand that if they choose not to update to this newest version, they understand and accept this fact, so it is recommended to always upgrade to the latest software.

You may access:

- The BaseSpace Onsite Datasheet

- These BaseSpace Onsite Release Notes

- The BaseSpace Onsite User Guide

At this link:
http://support.illumina.com/sequencing/sequencing_software/basespace_onsite.html

I. BaseSpace Onsite Image v2.0 and Upgrade Package v2.0

NEW FEATURES:

- BaseSpace changes (Moving to BaseSpace 3.14):
  - Manifest Upload (3.8)
  - Upgraded choosers (3.8)
  - Enhanced Search (3.8, 3.9)
  - FASTQ Upload (3.9, 3.10) [including help dialog on FASTQ Illumina naming standards (3.9.1)]
  - Delete Run and Analysis (3.10), Delete Sample and Project (3.13)
  - Updated prep kit indexes in the Prep Tab page (3.11):
    - Nextera DNA N501 -> N517
    - Nextera XT S501 -> S517
    - Nextera Rapid Capture E501 -> E517
    - Nextera Mate Pair

- Resource Matcher (Amplicon DS) (3.12)

- Coverage and Index File Generation changes (3.13)

- Fixes for SAV views/plots and InterOp file loading from newer RTA output (3.13.1, 3.13.2)

- Tooltip on choosers (i.e. Amplicon DS pairing chooser) (3.13.3)

- Importer: FASTQ uploads now return the proper "cluster counts" for Paired-end samples (3.14)

- BaseSpace Onsite System and Admin changes:

  - HiSeq support (up to HiSeq 2500; via sample sheet upload only, no changes in Prep tab workflow)

    - This release includes an update to the GenerateFASTQ workflow to utilize the FUSE drive for mounting input data and fixing bugs that interfered with HiSeq sequencing data Support.

  - Addition of Native and third Party Apps (all included with the addition of the Docker framework):

    - 16S Metagenomics v1.0

    - Amplicon DS v1.1

    - BWA Enrichment v2.1

    - Cufflinks Assembly & DE v1.1

    - Isaac Enrichment v2.1

    - Novoalign Generic DNA pipeline (no version)

    - SPAdes Genome Assembler v3.0

    - TruSeq Amplicon v1.1

    - TruSeq Long-Read Assembly v1.1

    - TruSeq Phasing Analysis v1.1

  - Genomes available (not supported in all apps; no new organisms added for 2.0, but new files/annotations for certain app changes):

    - Homo sapiens (UCSC hg19)

    - Rattus norvegicus (UCSC rn5)

    - Escherichia coli K-12 DH10B (NCBI 2008-03-17)

    - PhiX

    - Arabidopsis thaliana (NCBI build 9.1)

    - Bos Taurus (ENSEMBL UMD3.1)

    - Saccharomyces cerevisiae (UCSC sacCer2)

    - Escherichia coli K-12 MG1655 (NCBI 2001-10-15)

    - Mus musculus (UCSC mm10 and mm9)

- Drosophila melanogaster (UCSC dm3)

- Rhodobacter sphaeroides 2.4.1 (NCBI 2005-10-07)

- We corrected the calculations used in the BaseSpace Onsite Admin page in the Active Storage tab on the left pie chart (Total Active Storage) to show free and used space. These values are not updated in real time and may take several minutes to update after an upload, analysis, archive, or delete action takes place.

- Added a Deleted Items tab in the Storage management screen in the BaseSpace Admin part of the site (includes restore and purge capabilities).

- The Software Updates tab was renamed to Updates, and it now shows both the BaseSpace Onsite release version as well as the BaseSpace version. This tab is used for installation of both software upgrades, and the additional genomes that can be found on the USB drive for this 2.0 upgrade release.

- Added a fourth button to the Logs tab on the BaseSpace Onsite Admin page for Download Delete Logs, which Illumina Support can use to investigate any issues related to the BaseSpace Delete feature.

- Added a feature during First Time Install (FTI) and to the SuperAdmin site where the Illumina Support personnel can enable or disable DNS. If DNS is disabled, then SMTP support is also immediately disabled and all notifications go through the BaseSpace Onsite dashboard for each user, rather than via email. This feature also impacts the method used for adding new users and setting their passwords, only a BaseSpace Admin can do that if SMTP is disabled. Illumina Support personnel can also independently disable SMTP while DNS is enabled, via the Email tab under System Settings in the SuperAdmin site.

- Simplified UI for entering the date in FTI and SuperAdmin

- We now have more robust mechanisms in place that performs a backup of all databases on the system regularly (and also performs a backup to the archive location if one is mounted).

- Upgraded OS to CentOS 6.5

- Upgraded database to support MySQL 5.6

- User Agreement and Third-Party license lists have been updated.

KNOWN ISSUES:

- Enrichment v2.1 Native Apps (both BWA and Isaac) does not support Adapter Trimming for this release. This issue is described in a tooltip message on the Input form for both apps. The note in the tooltip indicates that the user should refers to the BaseSpace Onsite user guide for information regarding alternative workarounds for adapter trimming.

- The Active Storage tab in the BaseSpace Onsite Admin part of the site has incorrect values for the pie chart on the right (Storage Use Per Owner). The calculations for the pie chart slices overestimate the usage per-user. This issue will be corrected in a future release.

- The Novoalign application that was given to us by a third-party developer only included a license that is valid until June 9, 2015. After June 9, 2015, the application will continue to function. However, the application only utilizes a single core. We are

working with the developer to obtain a permanent license for our Onsite users. If we are unable to obtain a permanent license, we will remove the application as part of our upcoming v2.1 update.

- BaseSpace Onsite v2.0 is compatible with IE (9 or higher), Chrome (39 or higher), Firefox (35 or higher), and Safari (10.9 or higher). Hardware requirements for these browsers can be found on the developer's website. A PC running Windows 7 or greater is required to access the BaseSpace Onsite.