

Sequel® Ile System: Location of HiFi Reads Files

Introduction

This document describes how to locate the `hifi_reads` files generated by SMRT® Link when you perform an on-instrument CCS analysis on the Sequel® Ile System.

Note: This document applies **only** to the Sequel Ile System.

HiFi Reads Generation

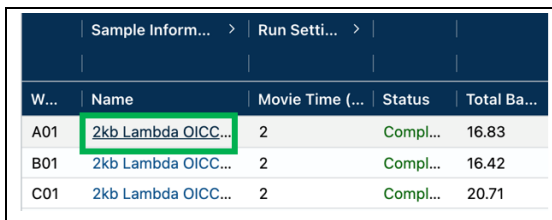
An on-instrument CCS analysis generates a `reads.bam` file and transfers it to the network server. The `reads.bam` file contains HiFi Reads and non-HiFi Reads, and should **not** be used unfiltered as input for tools that expect \geq QV 20. SMRT Link **automatically** launches an Export Reads analysis on the `reads.bam` to filter out the HiFi Reads, and generates the following HiFi data files by default:

- `<Movie_Name>.hifi_reads.fastq.gz` - FASTQ file containing HiFi Reads
- `<Movie_Name>.hifi_reads.fasta.gz` - FASTA file containing HiFi Reads
- `<Movie_Name>.hifi_reads.bam` - BAM file containing HiFi Reads

If **not** using SMRT Link for subsequent analysis, please use these three files as input with any third-party analysis tools.

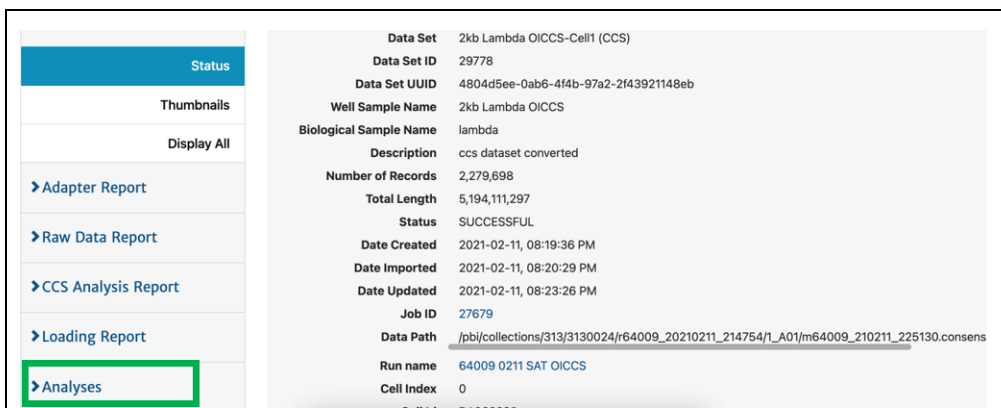
Finding the `hifi_reads` Files Generated Using On-Instrument CCS

1. In Run QC, click the desired run, then click the sample name to view the CCS Data Set.



W...	Name	Movie Time (...)	Status	Total Ba...
A01	2kb Lambda OICC...	2	Compl...	16.83
B01	2kb Lambda OICC...	2	Compl...	16.42
C01	2kb Lambda OICC...	2	Compl...	20.71

2. Click **Analyses** in the left-side panel.



- Status
- Thumbnails
- Display All
- > Adapter Report
- > Raw Data Report
- > CCS Analysis Report
- > Loading Report
- > Analyses

Data Set 2kb Lambda OICCS-Cell1 (CCS)

Data Set ID 29778

Data Set UUID 4804d5ee-0ab6-4f4b-97a2-2f43921148eb

Well Sample Name 2kb Lambda OICCS

Biological Sample Name lambda

Description ccs dataset converted

Number of Records 2,279,698

Total Length 5,194,111,297

Status SUCCESSFUL

Date Created 2021-02-11, 08:19:36 PM

Date Imported 2021-02-11, 08:20:29 PM

Date Updated 2021-02-11, 08:23:26 PM

Job ID 27679

Data Path /pbi/collections/313/3130024/r64009_20210211_214754/1_A01/m64009_210211_225130.consens

Run name 64009 0211 SAT OICCS

Cell Index 0

3. Click the **Export Reads** analysis.

Name	State	Id	Date Created	Created By	Analysis Application
Auto Analyses of 64009 0211 SAT OICCS	SUCCESSFUL	27671	2021-02-11, 01:45:49 PM	aswei	
Export Reads of 2kb Lambda OICCS	SUCCESSFUL	27672	2021-02-11, 01:45:49 PM	aswei	Export Reads

4. To locate the directory containing the three `hifi_reads` files, append `/outputs` to the path shown.

Analysis Overview

Status

Display All

Data

Analysis: Export Reads of 2kb Lambda OICCS

Analysis ID: 27672

From Multi-Job: 27671

Status: SUCCESSFUL: 5 tasks finished

Created By: aswei

Date Created: 2021-02-11, 01:45:49 PM

Date Updated: 2021-02-11, 08:34:01 PM

Application: Export Reads

SMRT Link Version: 10.1.0.115913

Data Type	Name	Import Complete
ConsensusReadSet	HIFI Reads: 2kb Lambda OICCS-Cell1 (...)	Yes

Path: `/pbi/dept/secondary/siv/smrtlink/smrtlink-siv-alpha/smrtlink_5.1.0.SNAPSHOT13617/userdata/jobs_root/0000/0000027/0000027672`

The three `hifi_reads` files are also available for download using **Data > File Downloads** in the same analysis.

For information about the content and location of the `reads.bam` and other files generated by the Sequel Ite System, see page 147 of the document **SMRT Link User Guide (v10.1)**, available [here](#).

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