

## Generating a Devyser sample sheet for MiSeq®

Generate a sample sheet for each run by using the valid version of the Illumina Experiment Manager (IEM) software according to the Illumina document # 15031335: "Illumina Experiment Manager Software Guide"1. The IEM software is installed on the MiSeq® computer and can also be downloaded from the Illumina website and installed on other computers.

### 1. MiSeq IEM files import

The following information applies to IEM version 1.15 and older.

Download the zip-bundle "MiSeq IEM files vYYYY-MM-DD" from the Devyser website. Locate the Illumina folder on the MiSeq computer or on your computer. It can usually be found under C:\Program Files (x86), alternatively under C:\Program Files. Then add the files listed below in the destination folder indicated for each file.

- DEVYSER double Index MiSeq.txt  
Into: Illumina\Illumina Experiment Manager\SamplePrepKits
- DevyserGenerateFASTQ.txt  
Into: Illumina\Illumina Experiment Manager\Applications
- DevyserGenerateFASTQ.jpg (not applicable for IEM v1.14 and v1.15)  
Into: Illumina\Illumina Experiment Manager\Applications\Images

**Note!** Before updating the IEM software, uninstall any previous version. Then manually delete all the Devyser files that are still present in the folders listed above. Finally, install the updated version of the IEM software.

### 2. Sample sheet generation

Open the IEM software and execute the steps described below to generate a sample sheet for single read (SR) or paired end (PE) runs. For further information about the read type and number of cycles, refer to the Devyser kit specific IFU.

#### DEVYSER FASTQ Only Run Settings

- A. Select Create Sample Sheet
- B. Select MiSeq and then click Next
- C. Select Other and DevyserFASTQ Only and then click Next
- D. Enter the information as outlined in steps E - J
- E. *Reagent Cartridge Barcode:* Enter the barcode of the reagent cartridge
- F. *Library Prep Kit/Workflow:* Select Devyser double Index MiSeq
- G. *Index Adapters:* Select Devyser double Index MiSeq (only applicable to IEM v1.14 and v1.15)
- H. *Index Reads:* Select 2 (Dual)
- I. *Read Type:* Select Single Read or Paired End
- J. *Cycles Read 1:* Enter the desired number of cycles;
  - 301 for a 1x301 run (SR)
  - 151 for a 2x151 run (PE)
  - 251 for a 2x251 run (PE)
- K. *Cycles Read 2:* Enter the desired number of cycles (not applicable to SR run);
  - 151 for a 2x151 run (PE)
  - 251 for a 2x251 run (PE)

## DEVYSER FASTQ Only Workflow-Specific Settings

- A. Ensure that only *Use Adapter Trimming* and *Use Adapter Trimming Read 2* boxes are checked and then click Next
- B. Click Add Blank Row until the desired number of sample rows have been generated
- C. In the Sample ID column, add sample names
- D. In the Index 1 (I7) column, choose the correct index (N701-N712) in the drop-down menu (see tables 1-3)
- E. In the Index 2 (I5) column, choose the correct indexes (N501-N508) in the drop-down menu (see tables 1-3)
- F. Click Finish and save the Sample Sheet
- Q. If necessary, transfer the sample sheet to the correct location on the Illumina MiSeq® (as described in the Illumina document # 15027617: "MiSeq® System Guide"<sup>2</sup>)

If many samples are sequenced, we recommend that a Sample Plate is created in a 96-well format in the IEM software. Detailed information on how to generate sample plates is available in the Illumina document # 15031335: "Illumina Experiment Manager Software Guide"<sup>1</sup>.

### 3. Index description

The Illumina double index introduced during PCR2 are listed in tables 1-3 below

**Table 1: Illumina double index used in Index strip A1**

	Index 1-8
	Index1: N701
Index2: N501	1
Index2: N502	2
Index2: N503	3
Index2: N504	4
Index2: N505	5
Index2: N506	6
Index2: N507	7
Index2: N508	8

**Table 2: Illumina double index used in Index strip A2**

	Index 1-8	Index 9-16	Index 17-24
	Index1: N701	Index1: N702	Index1: N703
Index2: N501	1	9	17
Index2: N502	2	10	18
Index2: N503	3	11	19
Index2: N504	4	12	20
Index2: N505	5	13	21
Index2: N506	6	14	22
Index2: N507	7	15	23
Index2: N508	8	16	24

**Table 3: Illumina double index used in Index strip A3**

	Index 1-8	Index 9-16	Index 17-24	Index 25-32	Index 33-40	Index 41-48	Index 49-56	Index 57-64	Index 65-72	Index 73-80	Index 81-88	Index 89-96
	Index1: N701	Index1: N702	Index1: N703	Index1: N704	Index1: N705	Index1: N706	Index1: N707	Index1: N708	Index1: N709	Index1: N710	Index1: N711	Index1: N712
Index2: N501	1	9	17	25	33	41	49	57	65	73	81	89
Index2: N502	2	10	18	26	34	42	50	58	66	74	82	90
Index2: N503	3	11	19	27	35	43	51	59	67	75	83	91
Index2: N504	4	12	20	28	36	44	52	60	68	76	84	92
Index2: N505	5	13	21	29	37	45	53	61	69	77	85	93
Index2: N506	6	14	22	30	38	46	54	62	70	78	86	94
Index2: N507	7	15	23	31	39	47	55	63	71	79	87	95
Index2: N508	8	16	24	32	40	48	56	64	72	80	88	96

#### 4. References

<sup>1</sup> Illumina Experiment Manager Software Guide (Document # 15031335)

<sup>2</sup> MiSeq® System Guide (Document # 15027617)