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Create VeriSeq PGS Worklists and Sample Sheets with BlueFuse Workflow Manager

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This quick reference card describes how to use the Illumina® BlueFuse Workflow Manager to create a VeriSeq PGS® worklist, and how to create and edit sample sheets compatible with your Illumina sequencing system and BlueFuse Multi analysis software.

VeriSeq PGS - MiSeq Sample Sheet Preparation

1. Open the BlueFuse Workflow Manager software, select the **VeriSeq PGS - MiSeq** workflow, and click **Next**.
2. From the BlueFuse Workflow Manager main screen, select **Create Worklist**.
3. On the Run Parameters screen, do the following:
   a. In the **Worklist Name** field, type a name for the worklist.
   b. In the **Sample Prep Kit** field, select VeriSeq PGS - MiSeq.
   c. In the **Number of Samples** field, select the number of samples: up to 12 (Single Index) or up to 24 (Dual Index).
   d. In the **Default Cell Type** field, select the default cell type of the samples.
   e. In the **Experiment Name** field, type a name for the experiment.
   f. [Optional] In the **Investigator Name** field, type the name of the investigator.
   g. In the **Run Date** field, select the date of the run from the calendar dropdown.
   h. [Optional] In the **Description** field, enter a description of the worklist.
   i. Click **Next**.

To edit an existing worklist, click **Edit Worklist** on the main screen and navigate to the worklist that you want to edit.

Enter Sample Information

Text fields cannot contain spaces or special characters (? ( ) [ ] / \= + < > : ; " , * ^ | &), except for the Description field, which can contain spaces.

1. From the Table tab or the Plate tab, enter the following information for each well containing a sample:
   a. **Cycle ID**—Enter a cycle ID.
   b. **Embryo ID** —Enter an embryo ID. For each sample, the combination of the Cycle ID and Embryo ID must be unique.
   c. **Cell Type**—Specify the type of cell in the sample.
   d. Calculate the dilution:
      - Enter the DNA concentration of the 1/10 diluted SurePlex reaction obtained from dsDNA quantification.
      - Enter the volume of the 1/10 dilution that will be transferred to the clean plate for library preparation.
      - The BlueFuse Workflow Manager calculates the volume of MBG water required to prepare dsDNA at 0.2 ng/µl.
   e. **Index 1 (I7)**—Select an entry from the Index 1 (I7) dropdown.
   f. **Index 2 (I5)**—Select an entry from the Index 2 (I5) dropdown.
   g. [Optional]—To record more detailed information about the samples, enter a sample description.
2. Go to the Plate Graphic tab and use the **Copy to Clipboard** or **Print** option to capture an image of the sample plate.
3. Click **Save Worklist**.

Create Sample Sheet

Create the sample sheet when the libraries are completed, using a unique Flow Cell ID selected for the run.

1. From the BlueFuse Workflow Manager main screen, select **Create Sample Sheet**.
2. Select a worklist from the **Select Worklist** dropdown or click **Browse** and navigate to an existing worklist.
3. Enter the **Flow Cell ID** and the **Cartridge Number** (typically in the format MSXXXXXXX-PGS).
4. Click **Save Sample Sheet** and save the sample sheet file in the designated folder. The file is saved using the name of the cartridge barcode for automatic processing by MiSeq.

5 Copy the sample sheet to the MiSeq sample sheet folder before executing a sequencing run.
Do not open or modify any files within the MiSeq run folder while the sequencing run is in progress.

Folder Settings

You can specify where your worklists and sample sheets are saved by clicking Folder Settings on the main screen of the BlueFuse Workflow Manager software. Click **Browse** to navigate to the desired folders for each type of file and then click **OK**.

Technical Assistance

For questions, see BlueFuse Workflow Manager on www.illumina.com. If you do not find the information you need there, contact Illumina Technical Support by email or phone.

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