

# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

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For Research Use Only. Not for use in diagnostic procedures.

# Manual

KlusterCaller and Kraken Plate Data Import Wizard

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## KlusterCaller and Kraken Plate Data Import Wizard

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### 1. Introduction

This document is intended as a guide to importing genotyping data into [KlusterCaller/Kraken](#) using the inbuilt 'Plate reader configuration wizard'. Data from both qPCR instruments and plate readers can be imported into the software, and the wizard will enable the user to teach the software to recognise their specific file format. Once the plate reader configuration wizard has been successfully completed/run, the software will be able to directly import all future files of this format.

### 2. Before you start

Before attempting to import your raw data into KlusterCaller/Kraken, it is essential to save the data in a format that the software can recognise. Acceptable file types are:

- Comma separated values file (.csv)
- Text/Tab-delimited (.txt)
- MS Excel 97-2003 (.xls)
- Data file (.dat) (N.B. File type specific to BMG OMEGA & PHERAstar plate readers)

If you are using a qPCR instrument, you will need to export the data from the qPCR instrument software and save it as one of the above file types. It is not possible to import data directly from a qPCR instrument software file (e.g. CFX Manager file, SDS 2.4 file). If your raw data is in MS Excel (post-2003), you can 'Save As' and choose one of the file formats listed above.

**IMPORTANT:** when saving your plate reader file(s) for import into KlusterCaller/Kraken, **do not** use dots (.) in the middle of the filename. Use of dots prevents the file from being imported correctly. For example "PLATE1234.01.01.2024.csv" will not be imported correctly whereas "PLATE1234\_01\_01\_2024.csv" will import without an issue.

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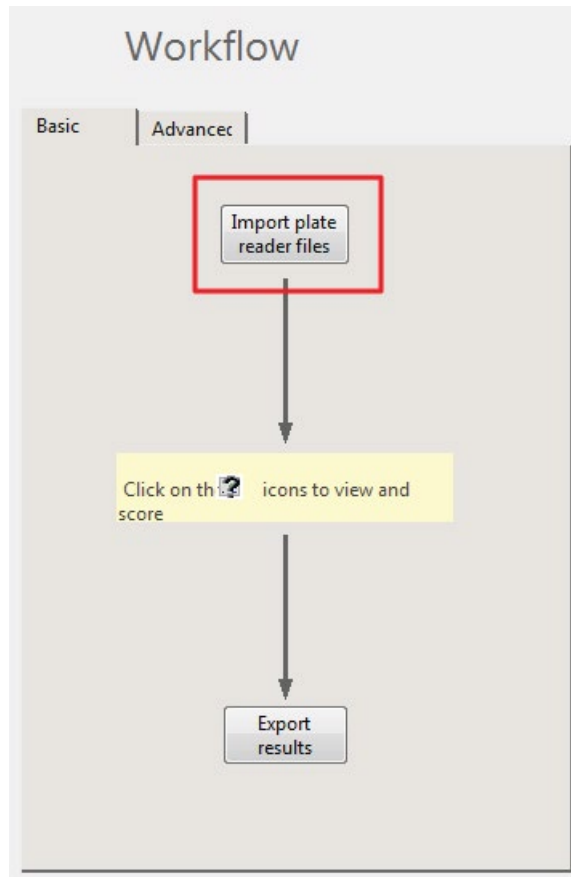
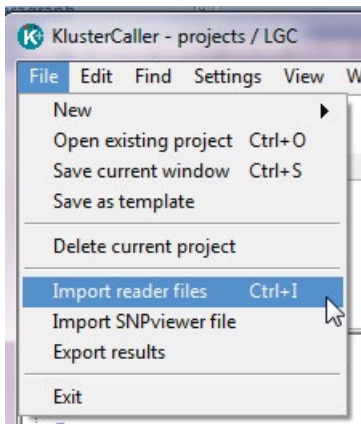
## KlusterCaller and Kraken Plate Data Import Wizard

### 3. Importing a data file

To import a new format of data file into either KlusterCaller (section 3.1) or Kraken (section 3.2), you will first need to navigate to the 'plate reader configuration wizard'.

#### 3.1 Using KlusterCaller

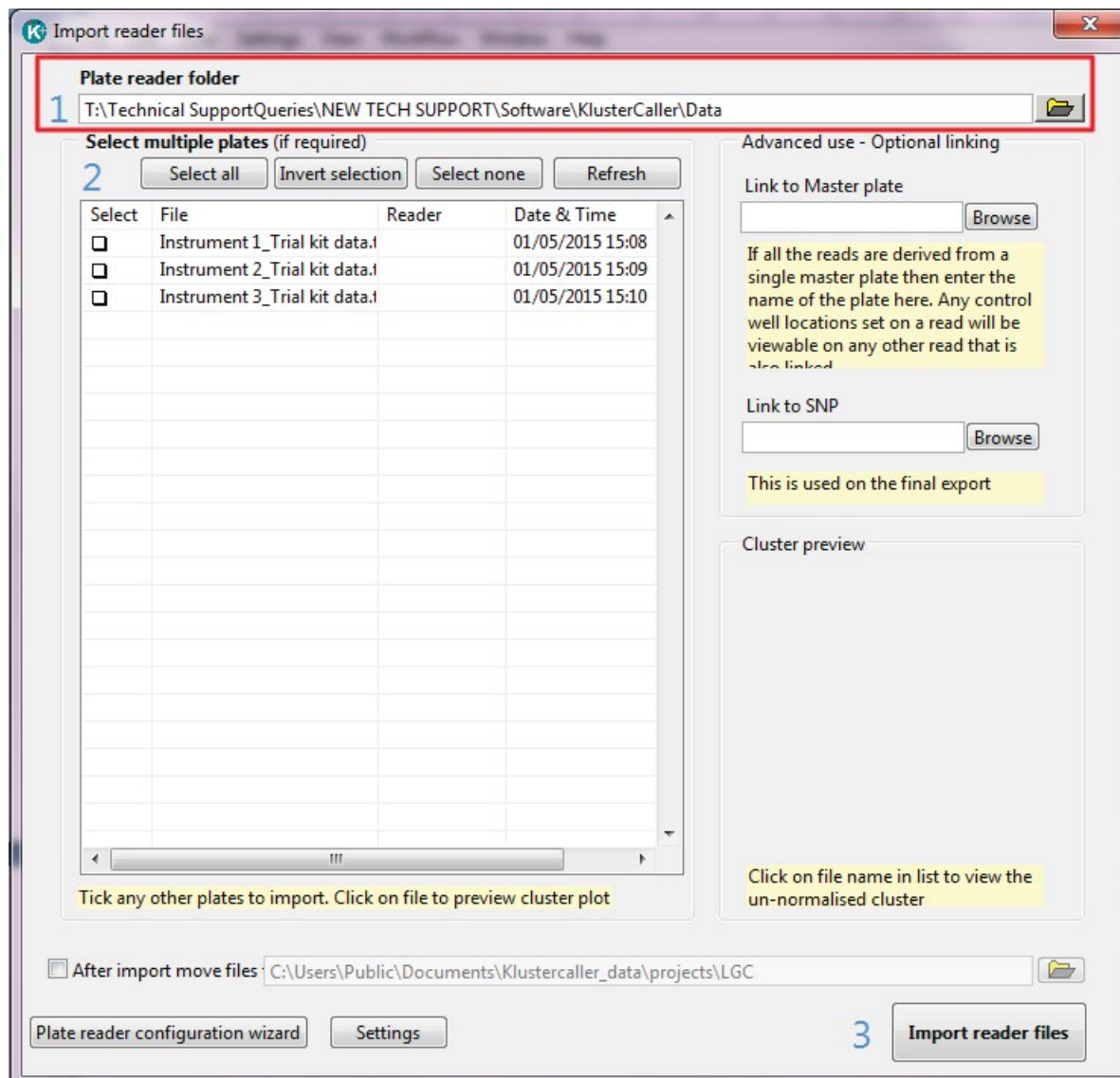
- Click on the 'File' menu and select 'Import Reader Files' or click on the 'Import Plate Reader Files' button in the 'Workflow' view.



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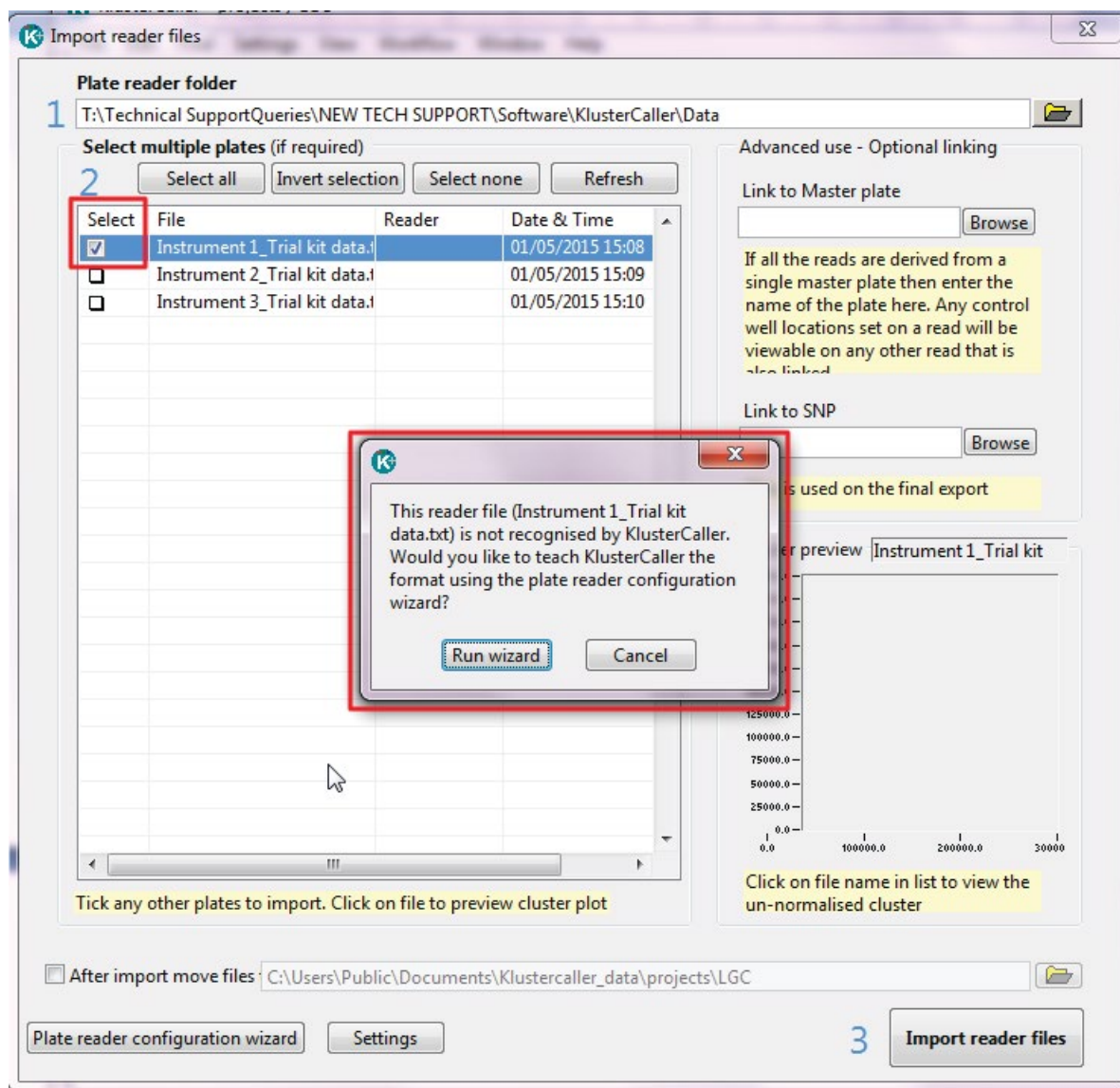
- b. In the 'Import reader files' window, navigate to the folder that contains the raw data file and press OK.



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## KlusterCaller and Kraken Plate Data Import Wizard

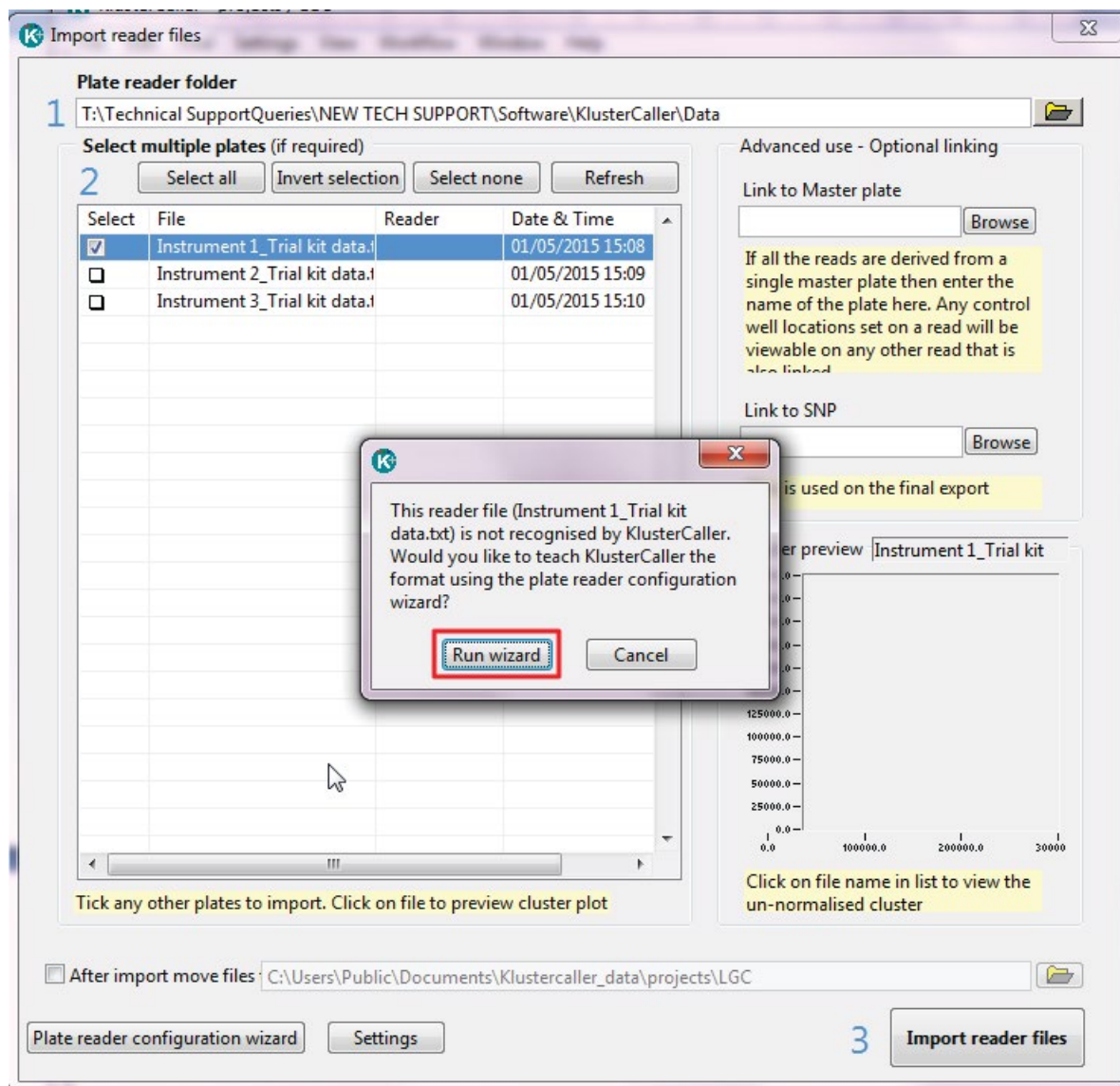
- c. Tick the box next to the file that you wish to import. If this file type is not recognised by KlusterCaller, you will be prompted to teach KlusterCaller the format using the plate reader configuration wizard.



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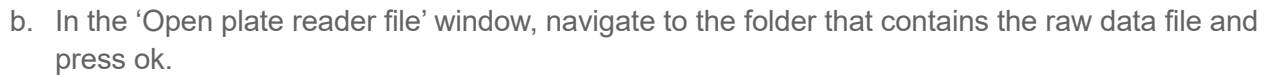
## KlusterCaller and Kraken Plate Data Import Wizard

- d. Click the 'Run Wizard' button to start the wizard.



# KlusterCaller and Kraken Plate Data Import Wizard

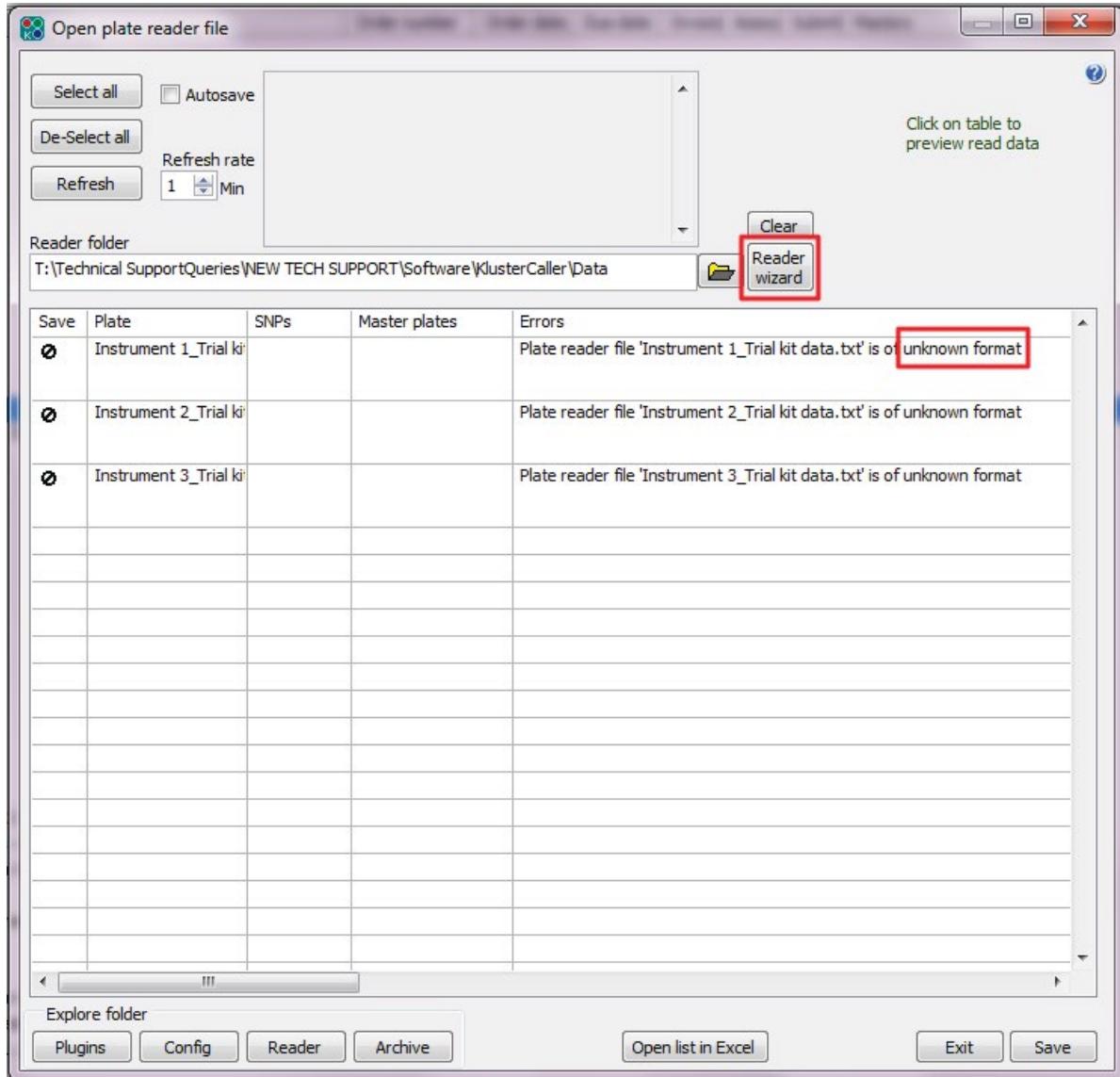
a. Click on the 'Import' menu and select 'Open Plate Reader Files'.





## KlusterCaller and Kraken Plate Data Import Wizard

- c. If the file type is not recognised (listed as 'unknown format'), click on the 'Reader Wizard' button to open the plate reader configuration wizard.







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## KlusterCaller and Kraken Plate Data Import Wizard

### 4. The plate reader configuration wizard – specific examples







There are three main file formats for raw KASP genotyping data that can be imported into KlusterCaller or Kraken. These formats are:

- a) **List format #1:** this file format typically contains the raw genotyping data in four columns. One column contains the well ID information (i.e. A01, A02), and then the additional three columns contain the raw fluorescence values for FAM, HEX (VIC) and ROX for each well respectively. It is not essential to read ROX, but the ROX values will enable your data to be normalised to correct for pipetting variations.

Well name	FAM	HEX	ROX
A1 A2  H12	1.8 1.7  0.48	0.02 0.04  1.01	147 153  149

For data files of this type, there may be additional columns within the file containing other run specific information – these can remain in the file, but will not be used for data analysis.

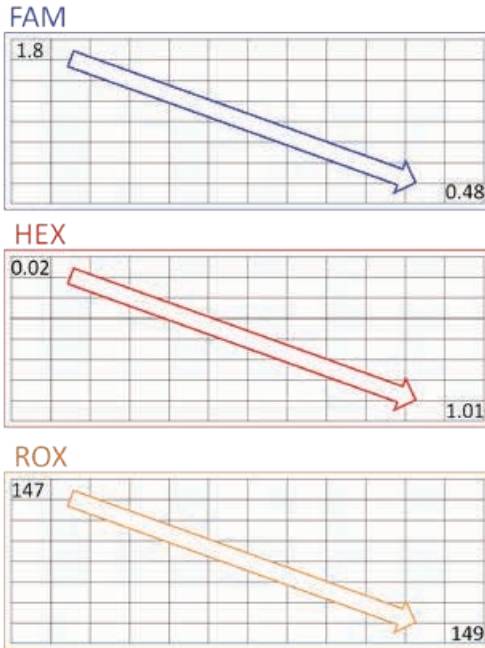
- b) **List format #2:** this file format typically contains the raw genotyping data in two columns. One column contains the well ID information (i.e. A01, A02), and then the second column contains the raw fluorescent values for FAM, then HEX (VIC), and then ROX respectively. The well ID information will be repeated in the first column to correspond with the data for each of the fluors.

Well name	Raw data
A1  H12	1.8  0.48
A1  H12	0.02  1.01
A1  H12	147  149

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- c) **Grid format:** this file format typically contains the raw genotyping data in a plate layout or grid format. There will be one grid for each set of fluorescent values, so a dataset containing FAM, HEX and ROX reads will consist of three grids of data.



This document will outline how to import these three different file formats in the following sections:

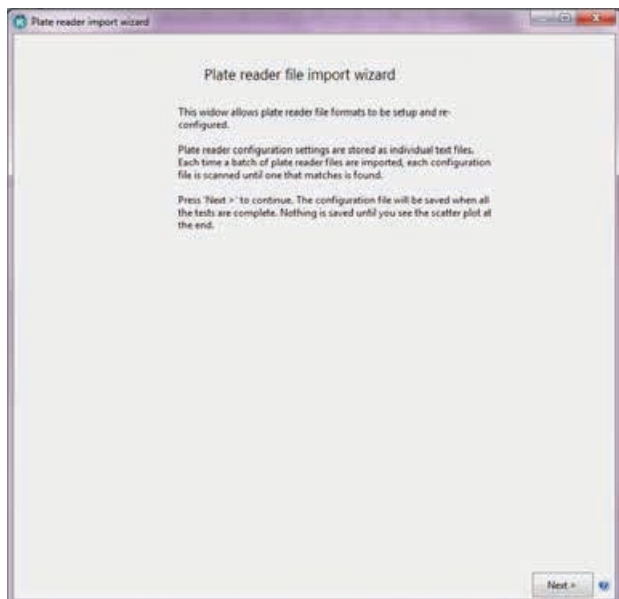
- a) List format #1: [Section 4.1](#)
- b) List format #2: [Section 4.2](#)
- c) Grid format: [Section 4.3](#)

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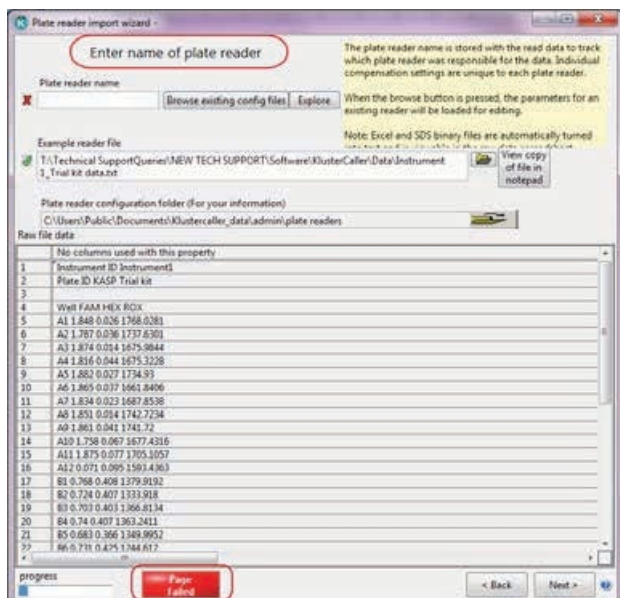
## KlusterCaller and Kraken Plate Data Import Wizard

### 4.1 Import of 'List format #1' data using the plate configuration wizard

- If your data file is not recognised, you will be prompted to run the plate configuration wizard. After pressing the 'Run Wizard' button, the 'plate reader import wizard' window will open.



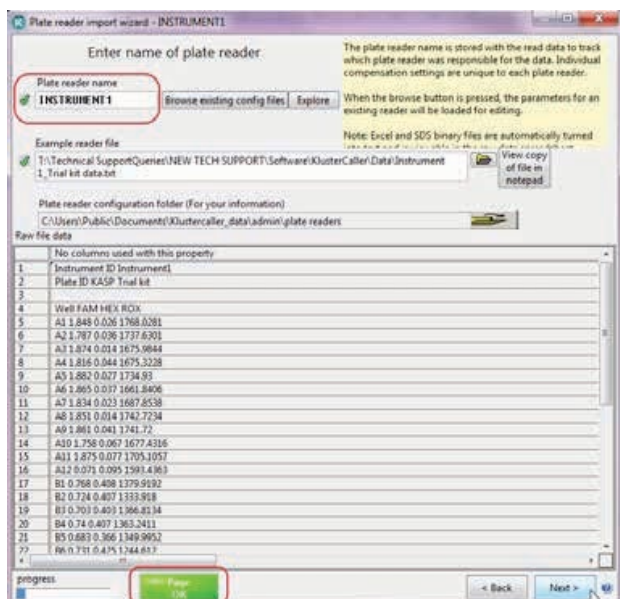
- Press 'Next'.
- You will then be prompted to enter the name of your plate reader. Until you do this, the page will be marked as failed.



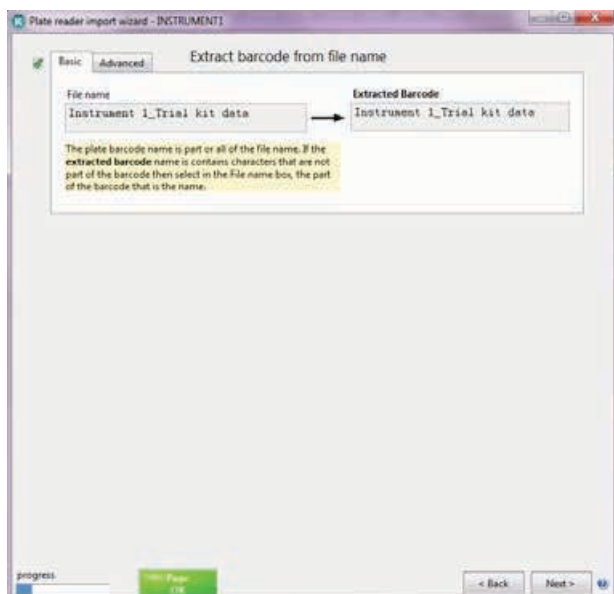
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- Input an appropriate name (in this case, 'Instrument1'), and press 'Next'.



- The wizard will then extract the file name as the identifier for the data. You do not need to edit anything in this window. Press 'Next'.



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- The wizard will auto-select the delimiter that separates the columns in your file. The delimiter can also be manually changed if the wizard has chosen the incorrect delimiter. In this example, it is 'Tab'. By selecting 'Tab' from the list, the preview of the data shows the data split into columns. If you have selected the incorrect delimiter, the data in the preview will not be split into columns. Ensure that you have selected the appropriate delimiter, and then press 'Next'.

Select the delimiter that separates columns

Delimiter: ☐ Space ☒ Tab ☐ Comma ☐ Other

Auto select: ☐ Keep consecutive delimiters: ☐ Delimiter:

Delimiter occurs in 120 out of 968 characters.

The data will become separated into cells when the correct delimiter is selected. The wizard will automatically guess the delimiter at the start.

Please note that all carriage return & line feed combinations are turned into single linefeeds.

Raw file data

	A	B	C	D
1	Instrument ID	Instrument1		
2	Plate ID	KASP Trial kit		
3				
4	Well	FAM	HEX	ROX
5	A1	1.848	0.036	1768.028
6	A2	1.787	0.036	1737.630
7	A3	1.874	0.034	1875.984
8	A4	1.816	0.044	1675.322
9	A5	1.882	0.027	1734.93
10	A6	1.865	0.037	1661.840
11	A7	1.834	0.023	1687.852
12	A8	1.851	0.014	1742.723
13	A9	1.863	0.041	1741.72
14	A10	1.758	0.067	1677.431
15	A11	1.875	0.077	1705.105
16	A12	0.071	0.095	1593.436
17	B1	0.768	0.408	1379.919
18	B2	0.724	0.407	1313.918
19	B3	0.769	0.409	1366.813
20	B4	0.74	0.407	1363.241
21	B5	0.683	0.366	1349.992
22	B6	0.731	0.425	1744.612

- The wizard then requires some unique text that appears in your data file. This text must also be present in all future files of this type, so text such as the individual plate ID will not be suitable. In this example, the instrument ID appears in row 1, and will appear in this position in all data files generated using this instrument – it is therefore suitable as the 'unique text'.

Select some unique text to identify this type of plate reader

Identifier 1:

Always on this row: ☐

Two areas of text are used to identify this particular plate reader or reader configuration (The plate readers own configuration file name maybe part of this text). This is the first identifier. Both identifiers must exist for this configuration to

This text must not be in the file:

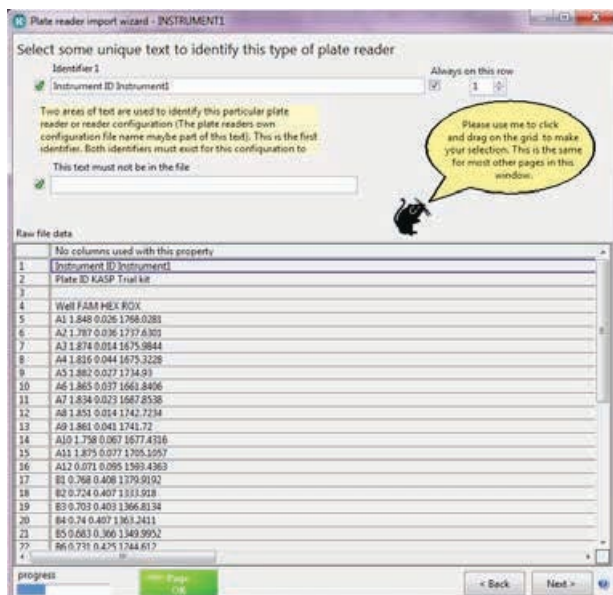
Raw file data

	No columns used with this property
1	Instrument ID Instrument1
2	Plate ID KASP Trial kit
3	
4	Well FAM HEX ROX
5	A1 1.848 0.036 1768.028
6	A2 1.787 0.036 1737.630
7	A3 1.874 0.034 1875.984
8	A4 1.816 0.044 1675.322
9	A5 1.882 0.027 1734.93
10	A6 1.865 0.037 1661.840
11	A7 1.834 0.023 1687.852
12	A8 1.851 0.014 1742.723
13	A9 1.863 0.041 1741.72
14	A10 1.758 0.067 1677.431
15	A11 1.875 0.077 1705.105
16	A12 0.071 0.095 1593.436
17	B1 0.768 0.408 1379.919
18	B2 0.724 0.407 1313.918
19	B3 0.769 0.409 1366.813
20	B4 0.74 0.407 1363.241
21	B5 0.683 0.366 1349.992
22	B6 0.731 0.425 1744.612

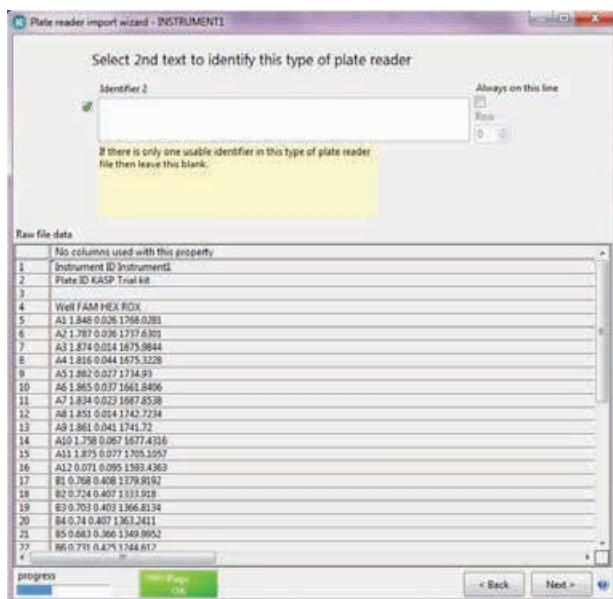
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- Click on the 'unique text' in the file preview. The text will appear in the 'Identifier 1' box, and the red cross will become a green tick. Press 'Next'.



- There is then the option to identify a second set of text as an additional identifier for the file type, but it is not necessary to include this. Either select an appropriate identifier, or leave the box blank, and then press 'Next'.





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- The wizard then requires information about the layout of the data in your file. The window will default to the settings below, but will require adjustment according to the specifics of your file format.

Plate reader import wizard - INSTRUMENT1

Data format:  
☐ List Values sets are in single columns  
☒ Grid Values are arranged like a plate  
☐ Rotate plate 180°  
Tick here if you have to feed the plate reader the wrong way round

Data sets:  
☒ X is required  
☒ Use Y (Y2)  
☒ Use Z (Y3)  
☐ Use Zy (Y4)  
☐ Use Y5

Well locations:  
☒ Names (A1..)  
☐ Numbers (1=A1, 2=A2...)  
☐ Numbers (1=A1, 2=A2...)  
☐ Not used if 'Grid' format is used  
☒ Value checking

Value multiplier:  
Value multiplier: 1  
Value offset: 0  
Maximum value: 0  
Maxed out test: ☐  
Initial status after import: New  
Autocall during import: ☐

Plate density: 384 wells  
Project type: All types  
Reader group:

Raw file data:

Instrument ID	Plate ID	Well	FAM	HEX	ROX
1	Instrument ID	Instrument ID			
2	Plate ID	KASP Trial k			
3					
4	Well	FAM	HEX	ROX	
5	A1	1.848	0.036	1768.028	
6	A2	1.787	0.036	1737.630	
7	A3	1.874	0.014	1675.984	
8	A4	1.816	0.044	1675.322	
9	A5	1.882	0.027	1734.93	
10	A6	1.865	0.037	1661.840	
11	A7	1.834	0.023	1687.853	
12	A8	1.851	0.034	1742.723	
13	A9	1.861	0.041	1741.72	
14	A10	1.798	0.067	1677.431	
15	A11	1.875	0.077	1705.205	
16	A12	0.071	0.095	1593.436	
17	B1	0.768	0.408	1379.919	
18	B2	0.724	0.407	1333.918	
19	B3	0.793	0.403	1366.813	
20	B4	0.74	0.407	1363.343	
21	B5	0.683	0.386	1349.992	
22	B6	0.791	0.424	1344.613	

- For this file format, the following sections require editing:
  - Data format: this should be changed from 'Grid' to 'List' as the raw data are formatted in lists
  - Well locations: if applicable, this should be changed to 'Names (A1..)' as each well is identified in the list by its actual name. In some cases, well names may be identified by numbers and you will need to select an alternative option.
  - Plate density: this should be reviewed to ensure that the correct plate type is selected i.e. 96 wells or 384 wells.

Plate reader import wizard - INSTRUMENT1

Data format:  
☒ List Values sets are in single columns  
☐ Grid Values are arranged like a plate  
☐ Rotate plate 180°  
Tick here if you have to feed the plate reader the wrong way round

Data sets:  
☒ X is required  
☒ Use Y (Y2)  
☒ Use Z (Y3)  
☐ Use Zy (Y4)  
☐ Use Y5

Well locations:  
☒ Names (A1..)  
☐ Numbers (1=A1, 2=A2...)  
☐ Numbers (1=A1, 2=A2...)  
☐ Not used if 'Grid' format is used  
☒ Value checking

Value multiplier:  
Value multiplier: 1  
Value offset: 0  
Maximum value: 0  
Maxed out test: ☐  
Initial status after import: New  
Autocall during import: ☐

Plate density: 96 wells  
Project type: All types  
Reader group:

Raw file data:

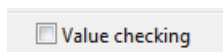
Instrument ID	Plate ID	Well	FAM	HEX	ROX
1	Instrument ID	Instrument ID			
2	Plate ID	KASP Trial k			
3					
4	Well	FAM	HEX	ROX	
5	A1	1.848	0.036	1768.028	
6	A2	1.787	0.036	1737.630	
7	A3	1.874	0.014	1675.984	
8	A4	1.816	0.044	1675.322	
9	A5	1.882	0.027	1734.93	
10	A6	1.865	0.037	1661.840	
11	A7	1.834	0.023	1687.853	
12	A8	1.851	0.034	1742.723	
13	A9	1.861	0.041	1741.72	
14	A10	1.798	0.067	1677.431	
15	A11	1.875	0.077	1705.205	
16	A12	0.071	0.095	1593.436	
17	B1	0.768	0.408	1379.919	
18	B2	0.724	0.407	1333.918	
19	B3	0.793	0.403	1366.813	
20	B4	0.74	0.407	1363.343	
21	B5	0.683	0.386	1349.992	
22	B6	0.791	0.424	1344.613	



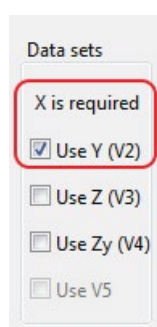
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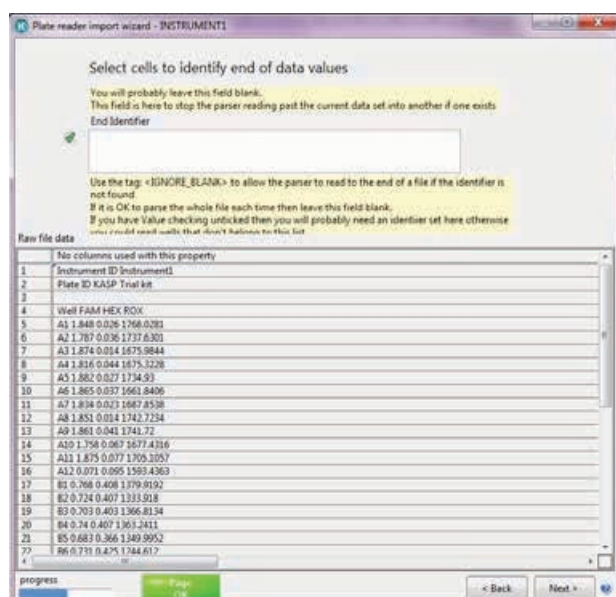
- If your data file does not contain data for a full plate (i.e. all 96 or 384 wells), it is essential to untick the 'Value checking' box.



- If your data file only contains FAM and HEX data (i.e. you have not read ROX), you will also need to edit the 'Data sets' section. In this case, only X and Y data sets should be selected.



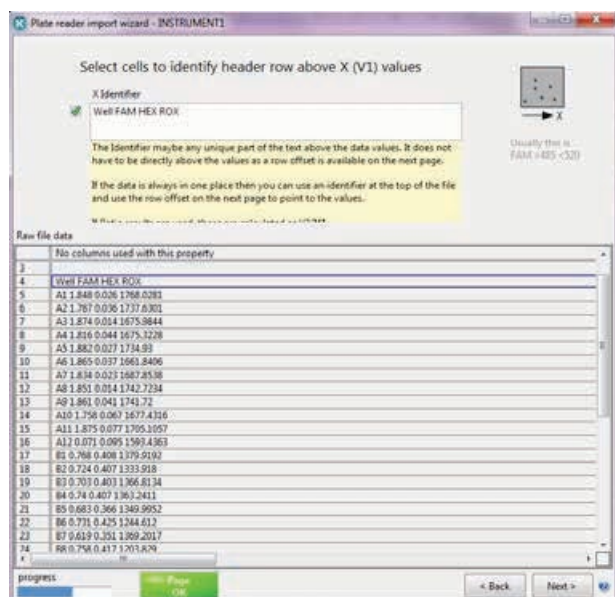
- Once all of the relevant sections have been edited, press 'Next'.
- The next window asks you to select cells that identify the end of your data values. This is not required, and you can just press 'Next'.



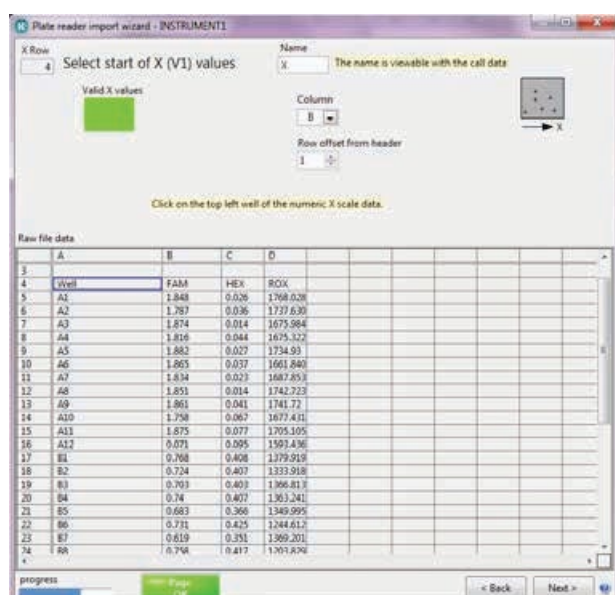
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- The wizard then requires a reference to the header row in the data file that appears above the X data values (X = FAM data). Click on the header row (in this example it is row 4), and the contents will appear in the 'X identifier' box at the top of the window. Press 'Next'.



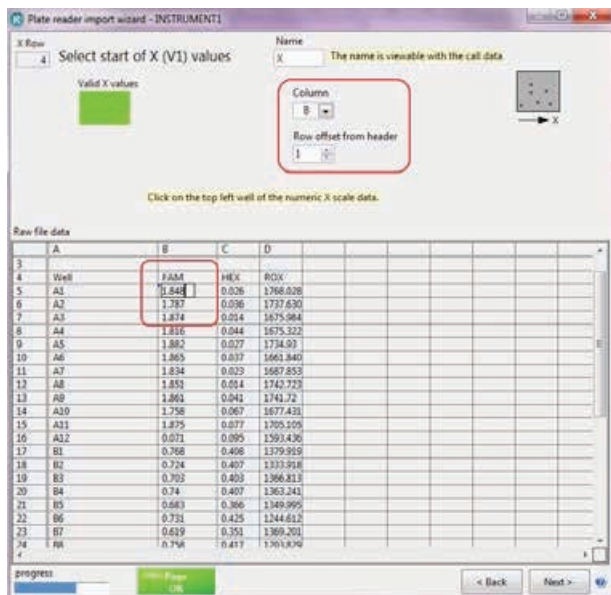
- The wizard then requires information regarding the position of the start of the X data values in the raw data file.



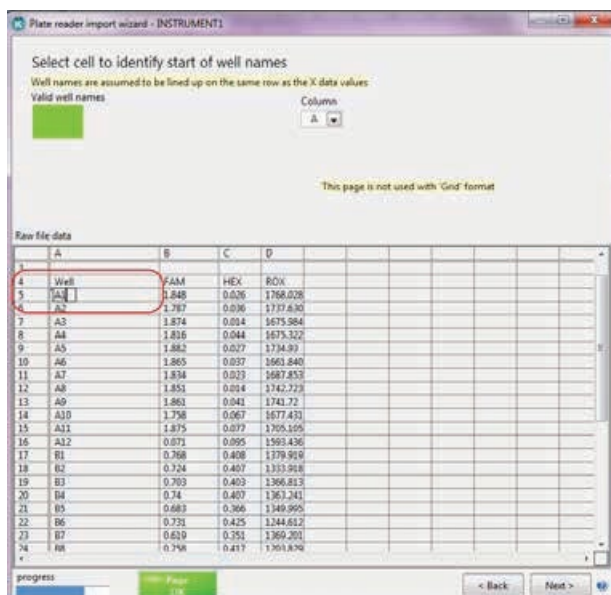
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- In this example, the X (FAM) data appears in column B so click on the relevant cell to identify the first X data value (in this case cell B5). Press 'Next'.



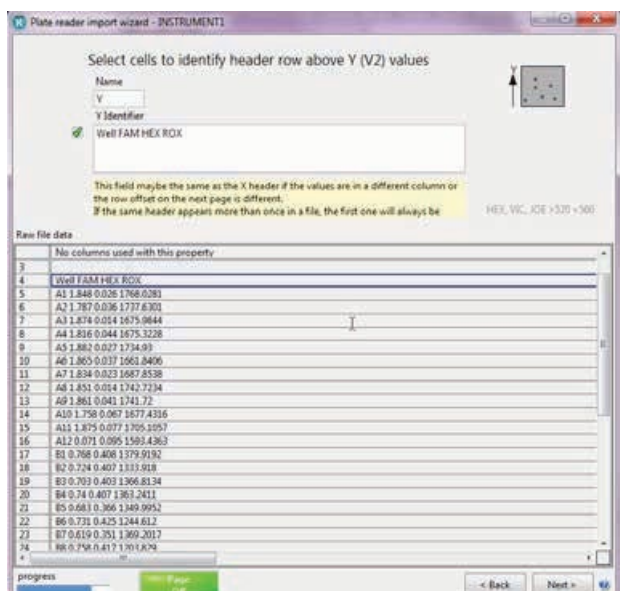
- The wizard then requires information regarding the position of the list of well names. Click on the first well name in the raw data file preview (in this case, it is cell A5). Press 'Next'.



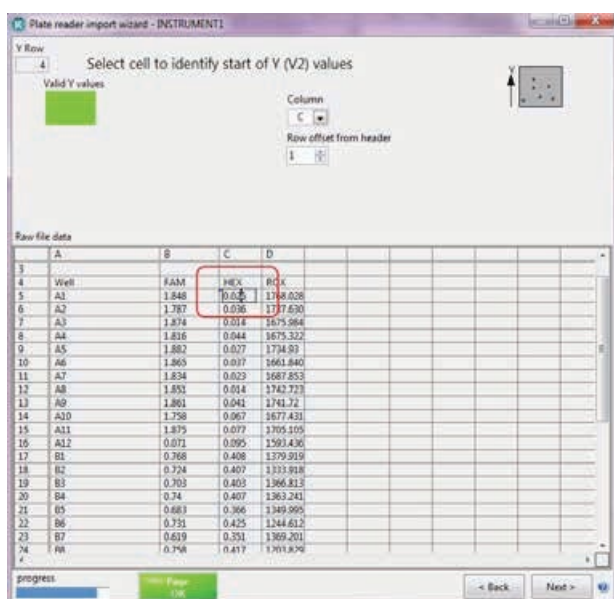
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- The wizard then requires a reference to the header row in the data file that appears above the Y data values (Y = HEX data). Click on the header row (in this example it is row 4), and the contents will appear in the 'Y identifier' box at the top of the window. Press 'Next'.



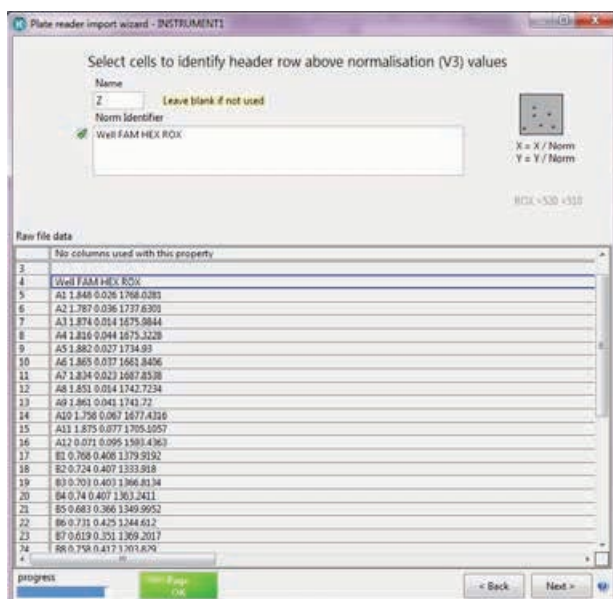
- The wizard then requires information regarding the position of the start of the Y data values in the raw data file. In this example, the Y (HEX) data appears in column C so click on the relevant cell to identify the first Y data value (in this case cell C5). Press 'Next'.



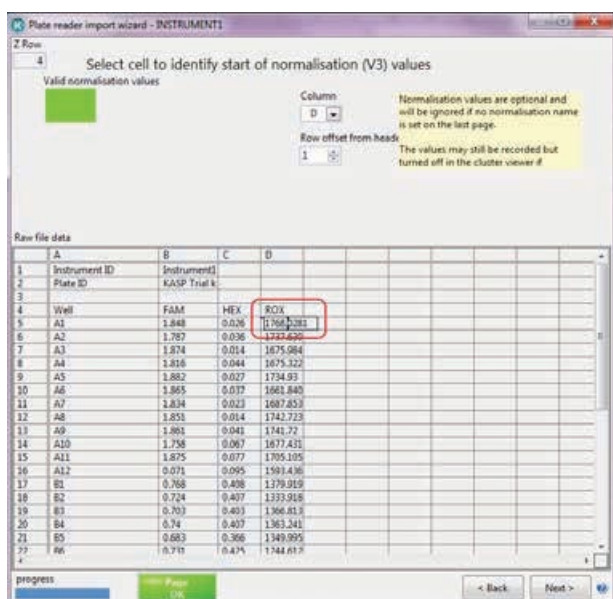
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- The wizard then requires a reference to the header row in the data file that appears above the Z data values (Z = ROX data). Click on the header row (in this example it is row 4), and the contents will appear in the 'Norm identifier' box at the top of the window. Press 'Next'.



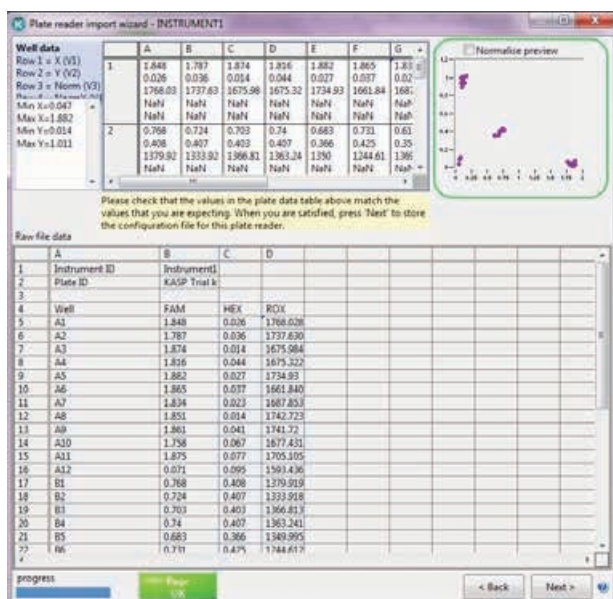
- The wizard then requires information regarding the position of the start of the Z data values in the raw data file. In this example, the Z (ROX) data appears in column D so click on the relevant cell to identify the first Z data value (in this case cell D5). Press 'Next'.



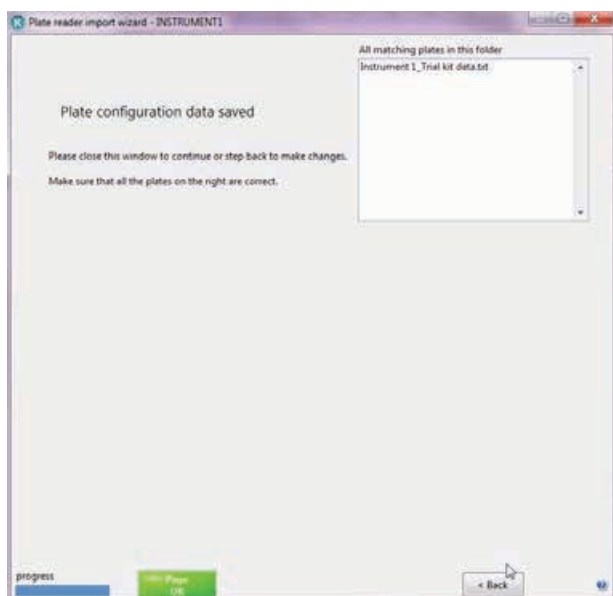
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- The wizard will now show a preview of your data, both as numerical values in a plate layout format and as a cluster plot. If this data looks as expected (i.e. A1 data is shown in the A1 grid layout at the top of the window), click 'Next'.



- The wizard will then open a confirmation window, stating that the configuration file for this data format has been saved. All raw data files that are recognised by this configuration file will be listed in the top right hand corner. Click on the red cross to close the wizard.

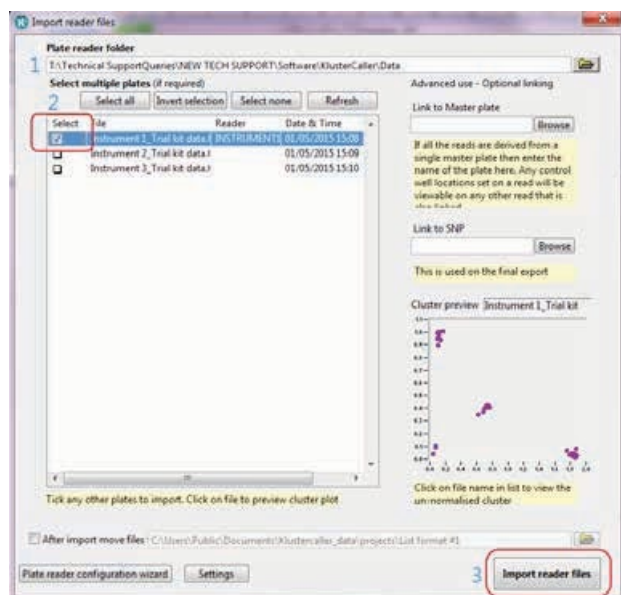




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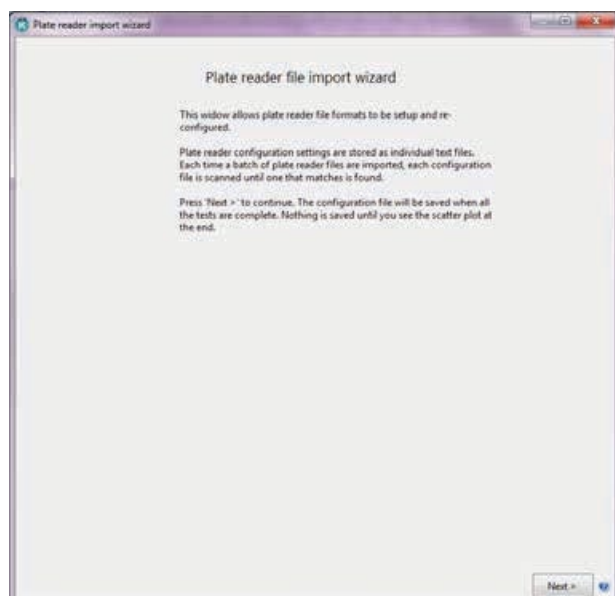
## KlusterCaller and Kraken Plate Data Import Wizard

- KlusterCaller will then return to the 'Import reader files' window. Place a tick in the box next to the relevant raw data file – this should now be recognised by the software. A preview cluster plot will also be visible. Click on the 'Import reader files' button to import this data file to your KlusterCaller project.



### 4.2 Import of 'List format #2' data using the plate configuration wizard

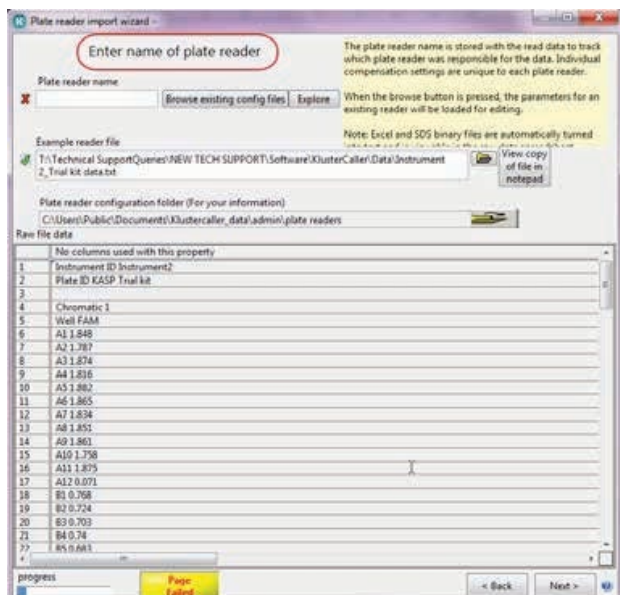
- If your data file is not recognised, you will be prompted to run the plate configuration wizard. After pressing the 'Run Wizard' button, the 'plate reader import wizard' window will open.



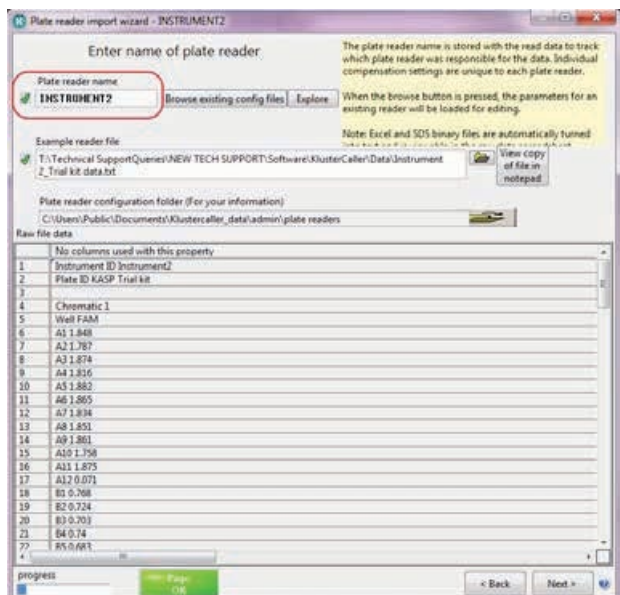
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- Press 'Next'.
- You will then be prompted to enter the name of your plate reader. Until you do this, the page will be marked as failed.



- Input an appropriate name (in this case, 'Instrument2'), and press 'Next'.

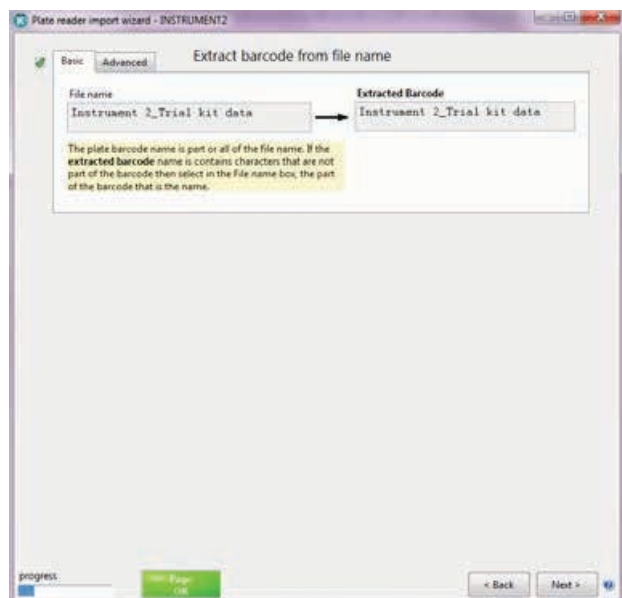




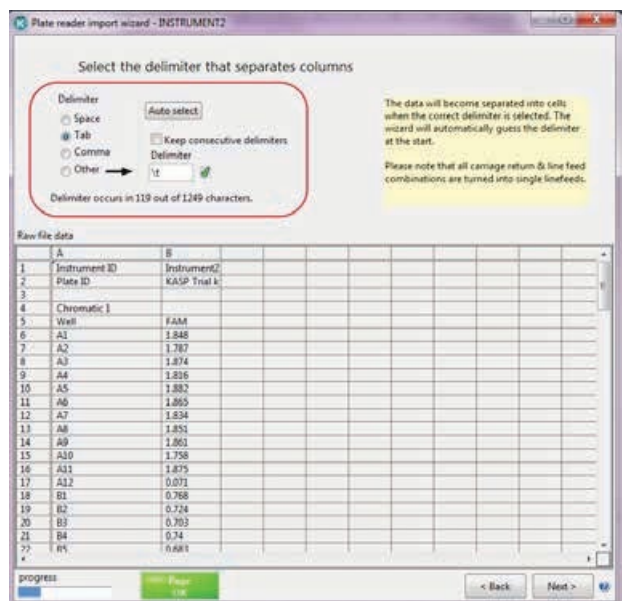
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard will then extract the file name as the identifier for the data. You do not need to edit anything in this window. Press 'Next'.



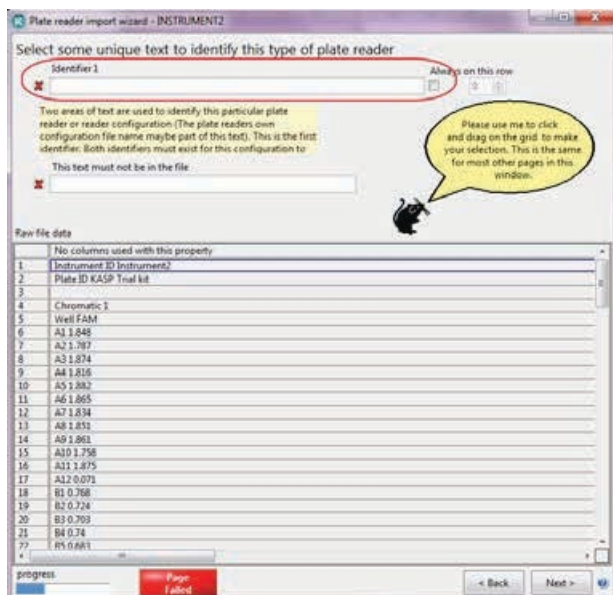
- The wizard will auto-select the delimiter that separates the columns in your file. The delimiter can also be manually changed if the wizard has chosen the incorrect delimiter. In this example, it is 'Tab'. By selecting 'Tab' from the list, the preview of the data shows the data split into columns. If you have selected the incorrect delimiter, the data in the preview will not be split into columns. Ensure that you have selected the appropriate delimiter, and then press 'Next'.



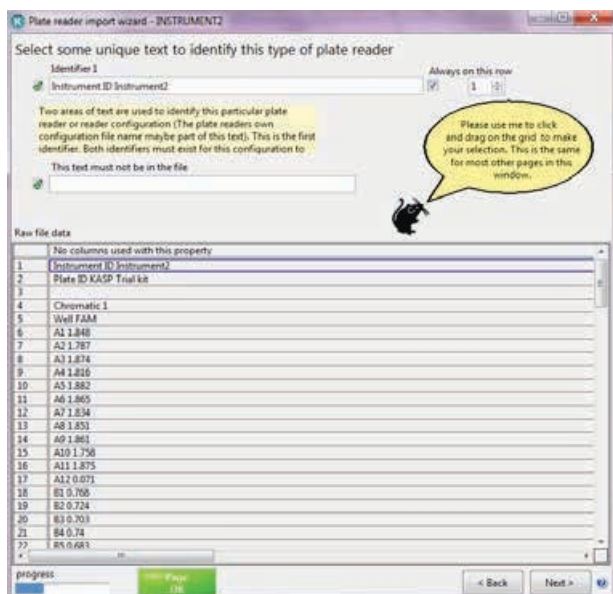
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard then requires some unique text that appears in your data file. This text must also be present in all future files of this type, so text such as the individual plate ID will not be suitable. In this example, the instrument ID appears in row 1, and will appear in this position in all data files generated using this instrument – it is therefore suitable as the ‘unique text’.



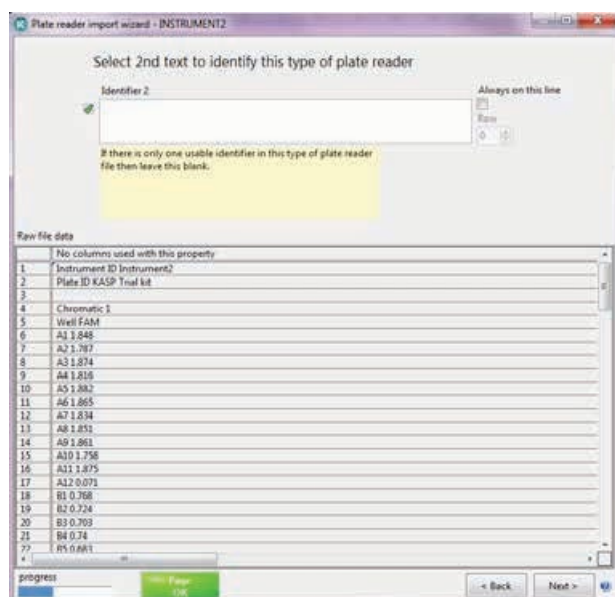
- Click on the ‘unique text’ in the file preview. The text will appear in the ‘Identifier 1’ box, and the red cross will become a green tick. Press ‘Next’.



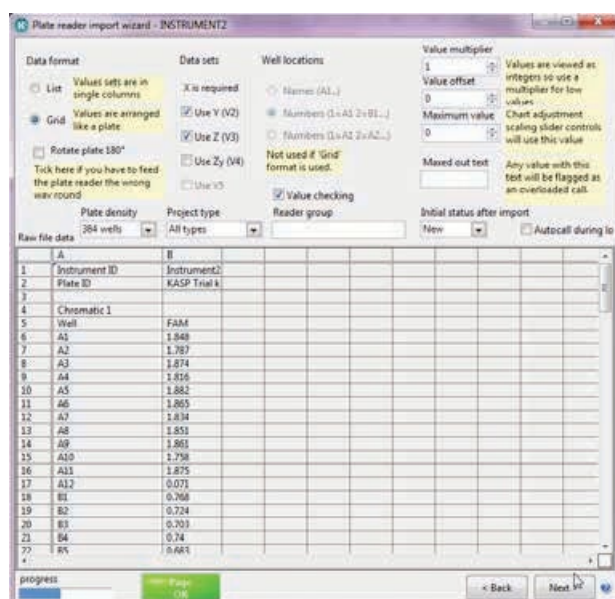
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- There is then the option to identify a second set of text as an additional identifier for the file type, but it is not necessary to include this. Either select an appropriate identifier, or leave the box blank, and then press 'Next'.



- The wizard then requires information about the layout of the data in your file. The window will default to the settings below, but will require adjustment according to the specifics of your file format.



# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- For this file format, the following sections require editing:
  - Data format: this should be changed from 'Grid' to 'List' as the raw data is formatted in a list.
  - Well locations: if applicable, this should be changed to 'Names (A1..)' as each well is identified in the list by its actual name. In some cases, well names may be identified by numbers and you will need to select an alternative option.
  - Plate density: this should be reviewed to ensure that the correct plate type is selected i.e. 96 wells or 384 wells.

Plate reader import wizard - INSTRUMENT2

**Data format**

☒ List Values sets are in single columns  
☐ Grid Values are arranged like a plate

☐ Rotate plate 180°  
Tick here if you have to feed the plate reader the wrong way round

**Data sets**

X is required  
☒ Use Y (V2)  
☒ Use Z (V3)  
☐ Use Zy (V4)  
☐ Use V5

**Well locations**

☒ Names (A1..)  
☐ Numbers (1=A1 2=B1...)  
☐ Numbers (1=A1 2=A2...)  
Not used if 'Grid' format is used.

☐ Value checking

**Value multiplier**

Value offset: 1  
Maximum value: 0  
Moved out text:   
Initial status after import: New  
☐ Autocalc during lo

**Plate density**  
96 wells

**Project type**  
All types

**Reader group**

**Raw file data**

	A	B
1	Instrument ID	Instrument2
2	Plate ID	KASP Trial k
3		
4	Chromatic 1	
5	Well	FAM
6	A1	1.848
7	A2	1.787
8	A3	1.874
9	A4	1.816
10	A5	1.882
11	A6	1.865
12	A7	1.854
13	A8	1.851
14	A9	1.861
15	A10	1.798
16	A11	1.875
17	A12	0.071
18	B1	0.766
19	B2	0.724
20	B3	0.763
21	B4	0.74
22	B5	0.681

- If your data file does not contain data for a full plate (i.e. all 96 or 384 wells), it is essential to untick the 'Value checking' box.

☐ Value checking

- If your data file only contains FAM and HEX data (i.e. you have not read ROX), you will also need to edit the 'Data sets' section. In this case, only X and Y data sets should be selected.

**Data sets**

☒ X is required

☒ Use Y (V2)

☐ Use Z (V3)

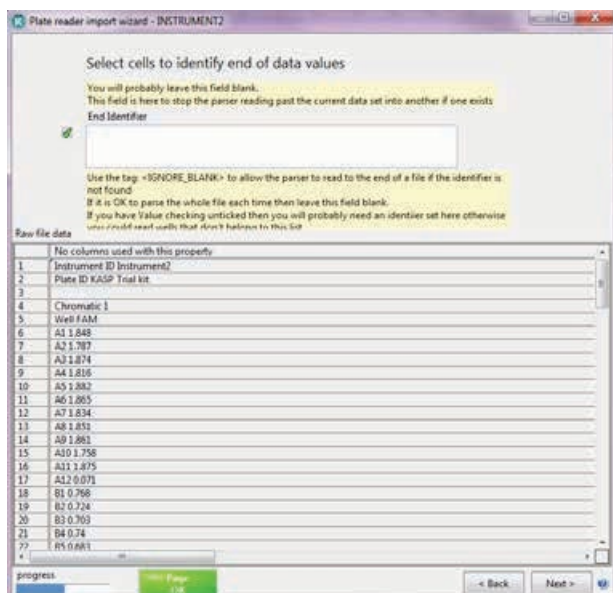
☐ Use Zy (V4)

☐ Use V5

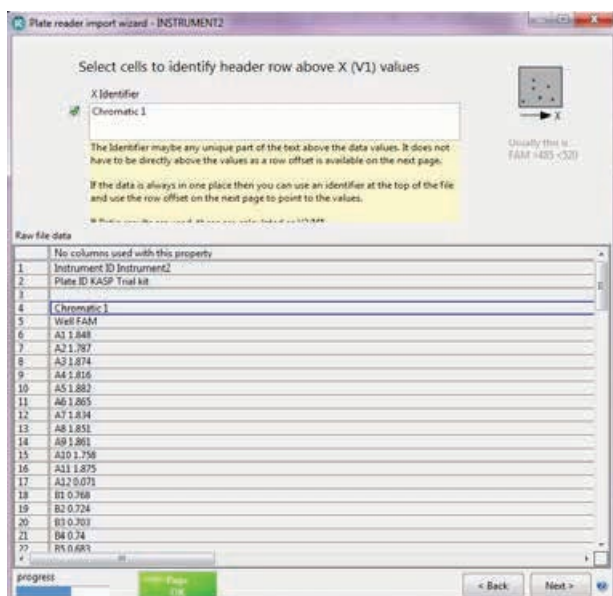
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- Once all of the relevant sections have been edited, press 'Next'.
- The next window asks you to select cells that identify the end of your data values. This is not required, and you can just press 'Next'.



- The wizard then requires a reference to the header row in the data file that appears above the X data values (X = FAM data). Click on the header row (in this example, row 4 can be used), and the contents will appear in the 'X identifier' box at the top of the window. Press 'Next'.



# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard then requires information regarding the position of the start of the X data values in the raw data file.

Plate reader import wizard - INSTRUMENT2

X Row: 4 Select start of X (V1) values

Name: X The name is viewable with the call data

Column: B

Row offset from header: 2

Valid X values

Click on the top left well of the numeric X scale data.

Raw file data

	A	B
3		
4	Chromatic 1	
5	Well	FAM
6	A1	1.848
7	A2	1.792
8	A3	1.874
9	A4	1.816
10	A5	1.882
11	A6	1.865
12	A7	1.834
13	A8	1.851
14	A9	1.861
15	A10	1.758
16	A11	1.875
17	A12	0.071
18	B1	0.768
19	B2	0.724
20	B3	0.703
21	B4	0.74
22	B5	0.683
23	B6	0.731
24	B7	0.619

progress

Next >

- In this example, the X (FAM) data appears in column B so click on the relevant cell to identify the first X data value (in this case cell B6). Press 'Next'.

Plate reader import wizard - INSTRUMENT2

X Row: 4 Select start of X (V1) values

Name: X The name is viewable with the call data

Column: B

Row offset from header: 2

Valid X values

Click on the top left well of the numeric X scale data.

Raw file data

	A	B
3		
4	Chromatic 1	
5	Well	FAM
6	A1	1.848
7	A2	1.792
8	A3	1.874
9	A4	1.816
10	A5	1.882
11	A6	1.865
12	A7	1.834
13	A8	1.851
14	A9	1.861
15	A10	1.758
16	A11	1.875
17	A12	0.071
18	B1	0.768
19	B2	0.724
20	B3	0.703
21	B4	0.74
22	B5	0.683
23	B6	0.731
24	B7	0.619

progress

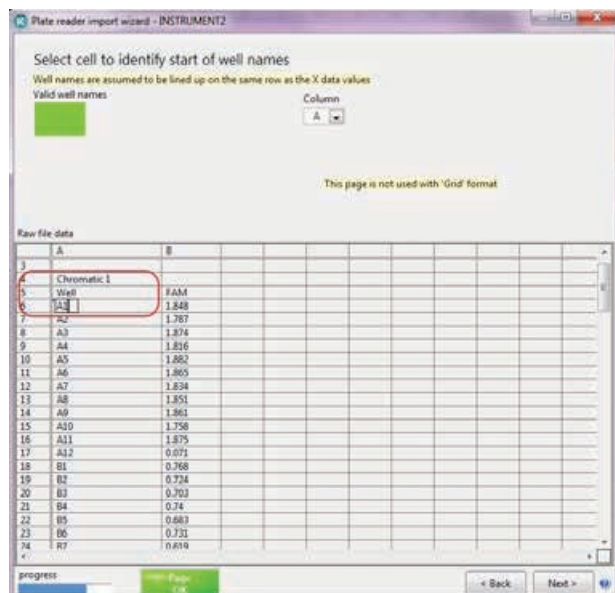
Next >



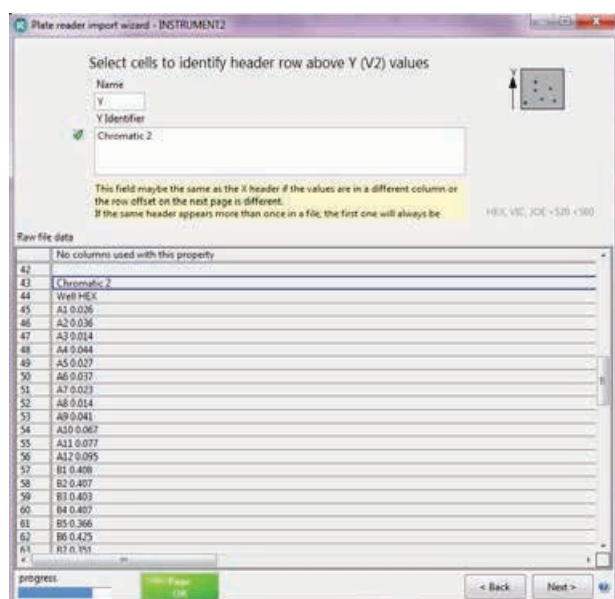
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard then requires information regarding the position of the list of well names. Click on the first well name in the raw data file preview (in this case, it is cell A6). Press 'Next'.



- The wizard then requires a reference to the header row in the data file that appears above the Y data values (Y = HEX data). Scroll down the raw data file and click on the header row (in this example it is row 43), and the contents will appear in the 'Y identifier' box at the top of the window. Press 'Next'.



# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard then requires information regarding the position of the start of the Y data values in the raw data file. In this example, the Y (HEX) data appears in column B, but starts on row 45, so click on the relevant cell to identify the first Y data value (in this case cell B45). Press 'Next'.

Plate reader import wizard - INSTRUMENT2

Y Row: 43

Select cell to identify start of Y (V2) values

Valid Y values: [Empty box]

Column: B

Row offset from header: 2

Raw file data:

	A	B
39	C10	0.092
40	C11	0.102
41	C12	0.047
42		
43	Chromatic 2	
44	Well	HEX
45	A1	0.036
46	A2	0.036
47	A3	0.014
48	A4	0.044
49	A5	0.027
50	A6	0.037
51	A7	0.023
52	A8	0.014
53	A9	0.041
54	A10	0.067
55	A11	0.077
56	A12	0.095
57	B1	0.400
58	B2	0.407
59	B3	0.403
60	B4	0.407

progress: 100%

< Back Next >

- The wizard then requires a reference to the header row in the data file that appears above the Z data values (Z = ROX data). Scroll down the raw data file and click on the header row (in this example it is row 82), and the contents will appear in the 'Norm identifier' box at the top of the window. Press 'Next'.

Plate reader import wizard - INSTRUMENT2

Select cells to identify header row above normalisation (V3) values

Name: Chromatic 3

Norm Identifier: Chromatic 3

Raw file data:

81	
82	Chromatic 3
83	Well ROX
84	A1 1708.0381
85	A2 1737.6301
86	A3 1675.9844
87	A4 1675.3228
88	A5 1734.91
89	A6 1661.8406
90	A7 1687.8538
91	A8 1742.7234
92	A9 1741.72
93	A10 1677.4106
94	A11 1705.1057
95	A12 1593.4363
96	B1 1779.9192
97	B2 1333.918
98	B3 1366.8134
99	B4 1361.2411
100	B5 1349.9952
101	B6 1244.612
102	B7 1360.2017

progress: 100%

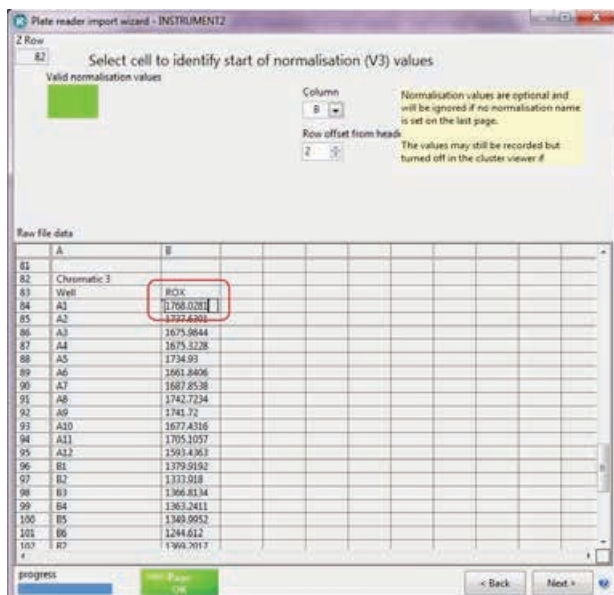
< Back Next >



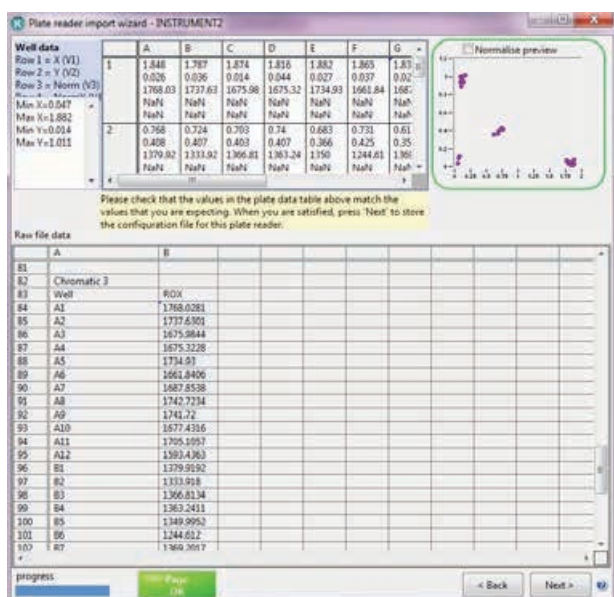
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard then requires information regarding the position of the start of the Z data values in the raw data file. In this example, the Z (ROX) data appears in column B, but starts on row 84, so click on the relevant cell to identify the first Z data value (in this case cell B84). Press 'Next'.



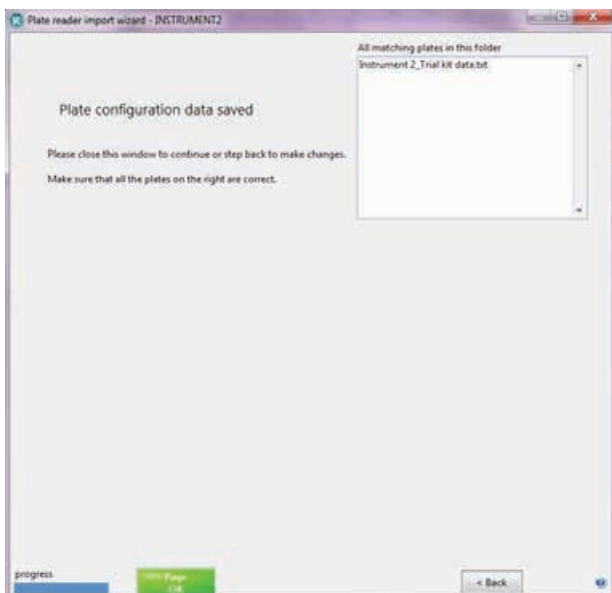
- The wizard will now show a preview of your data, both as numerical values in a plate layout format and as a cluster plot. If this data looks as expected (i.e. A1 data is shown in the A1 grid layout at the top of the window), click 'Next'.



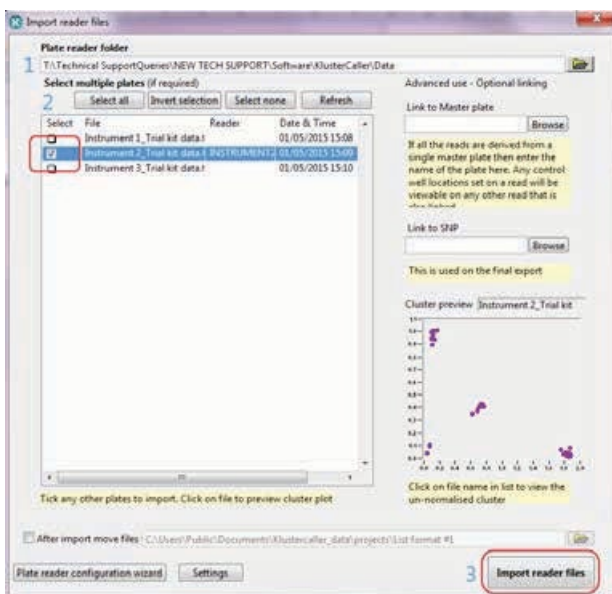
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard will then open a confirmation window, stating that the configuration file for this data format has been saved. All raw data files that are recognised by this configuration file will be listed in the top right hand corner. Click on the red cross to close the wizard.



- KlusterCaller will then return to the 'Import reader files' window. Place a tick in the box next to the relevant raw data file – this should now be recognised by the software. A preview cluster plot will also be visible. Click on the 'Import reader files' button to import this data file to your KlusterCaller project.

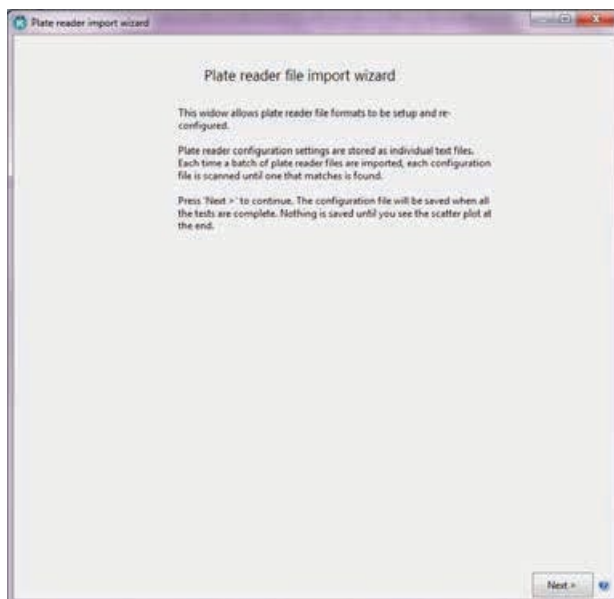


# Manual

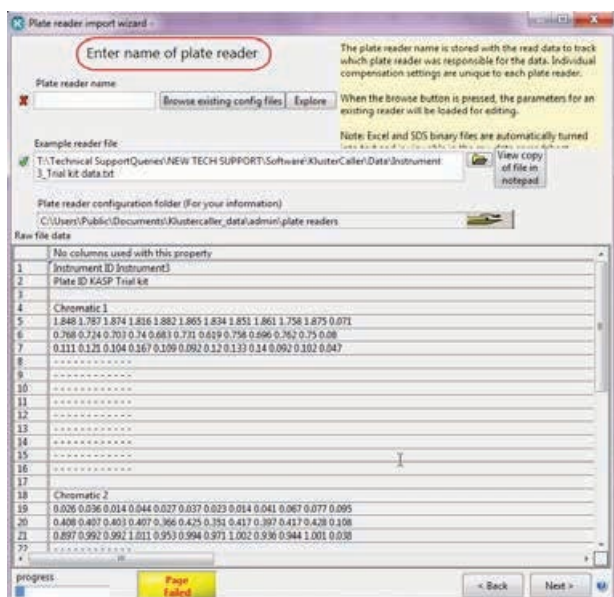
## KlusterCaller and Kraken Plate Data Import Wizard

### 4.3 Import of 'Grid format' data using the plate configuration wizard

- If your data file is not recognised, you will be prompted to run the plate configuration wizard. After pressing the 'Run Wizard' button, the 'plate reader import wizard' window will open.



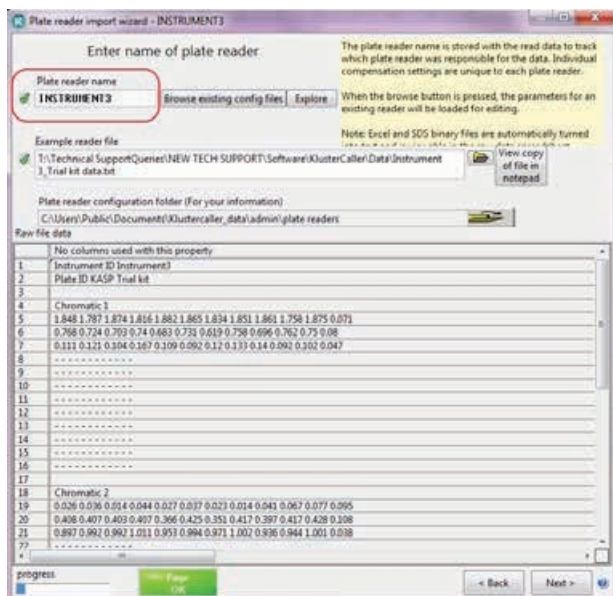
- Press 'Next'.
- You will then be prompted to enter the name of your plate reader. Until you do this, the page will be marked as failed.



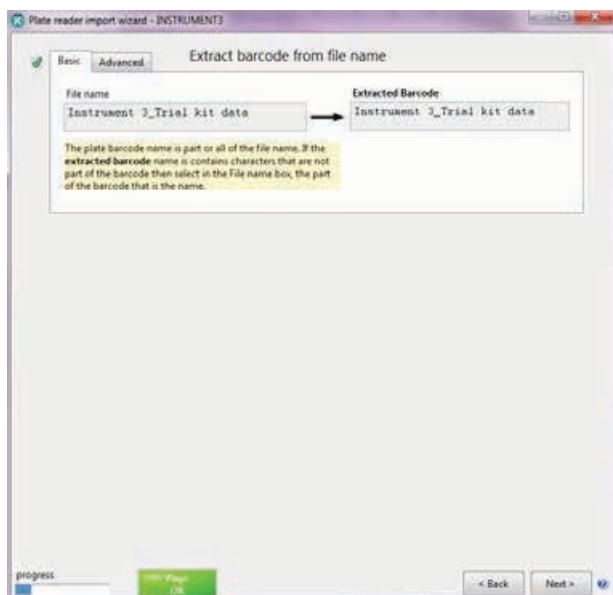
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- Input an appropriate name (in this case, 'Instrument3'), and press 'Next'.



- The wizard will then extract the file name as the identifier for the data. You do not need to edit anything in this window. Press 'Next'.



# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard will auto-select the delimiter that separates the columns in your file. The delimiter can also be manually changed if the wizard has chosen the incorrect delimiter. In this example, it is 'Tab'. By selecting 'Tab' from the list, the preview of the data shows the data split into columns. If you have selected the incorrect delimiter, the data in the preview will not be split into columns. Ensure that you have selected the appropriate delimiter, and then press 'Next'.

Plate reader import wizard - INSTRUMENT3

Select the delimiter that separates columns

Delimiter: ☐ Space ☒ Tab ☐ Comma ☐ Other

Auto select ☐ Keep consecutive delimiters ☐

Delimiter occurs in 484 out of 1599 characters.

The data will become separated into cells when the correct delimiter is selected. The wizard will automatically guess the delimiter at the start.

Please note that all carriage return & line feed combinations are turned into single linefeeds.

Raw file data

	A	B	C	D	E	F	G	H	I	J	K
1	Instrument ID	Instrument3									
2	Plate ID	KASP Trial k									
3											
4	Chromatic 1										
5	1.848	1.787	1.874	1.816	1.882	1.865	1.834	1.851	1.863	1.758	1.875
6	0.768	0.724	0.703	0.74	0.603	0.731	0.619	0.750	0.696	0.762	0.75
7	0.111	0.121	0.104	0.167	0.109	0.092	0.12	0.133	0.14	0.092	0.102
8	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-
18	Chromatic 2										
19	0.026	0.036	0.014	0.044	0.027	0.037	0.023	0.014	0.041	0.067	0.077
20	0.408	0.407	0.403	0.407	0.366	0.425	0.351	0.417	0.397	0.417	0.428
21	0.897	0.992	0.992	1.011	0.953	0.994	0.971	1.002	0.936	0.944	1.001
22	-	-	-	-	-	-	-	-	-	-	-

progress ☐ Page 1 of 4

< Back Next >

- The wizard then requires some unique text that appears in your data file. This text must also be present in all future files of this type, so text such as the individual plate ID will not be suitable. In this example, the instrument ID appears in row 1, and will appear in this position in all data files generated using this instrument – it is therefore suitable as the 'unique text'.

Plate reader import wizard - INSTRUMENT3

Select some unique text to identify this type of plate reader

Identifier 1:

Always on this row ☐

Two areas of text are used to identify this particular plate reader or reader configuration (The plate readers own configuration file name maybe part of this text). This is the first identifier. Both identifiers must exist for this configuration to

This text must not be in the file

Please use me to click and drag on the grid to make your selection. This is the same for most other pages in this window.

Raw file data

No columns used with this property

	A	B	C	D	E	F	G	H	I	J	K
1	Instrument ID	Instrument3									
2	Plate ID	KASP Trial k									
3											
4	Chromatic 1										
5	1.848	1.787	1.874	1.816	1.882	1.865	1.834	1.851	1.863	1.758	1.875
6	0.768	0.724	0.703	0.74	0.603	0.731	0.619	0.750	0.696	0.762	0.75
7	0.111	0.121	0.104	0.167	0.109	0.092	0.12	0.133	0.14	0.092	0.102
8	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-
18	Chromatic 2										
19	0.026	0.036	0.014	0.044	0.027	0.037	0.023	0.014	0.041	0.067	0.077
20	0.408	0.407	0.403	0.407	0.366	0.425	0.351	0.417	0.397	0.417	0.428
21	0.897	0.992	0.992	1.011	0.953	0.994	0.971	1.002	0.936	0.944	1.001
22	-	-	-	-	-	-	-	-	-	-	-

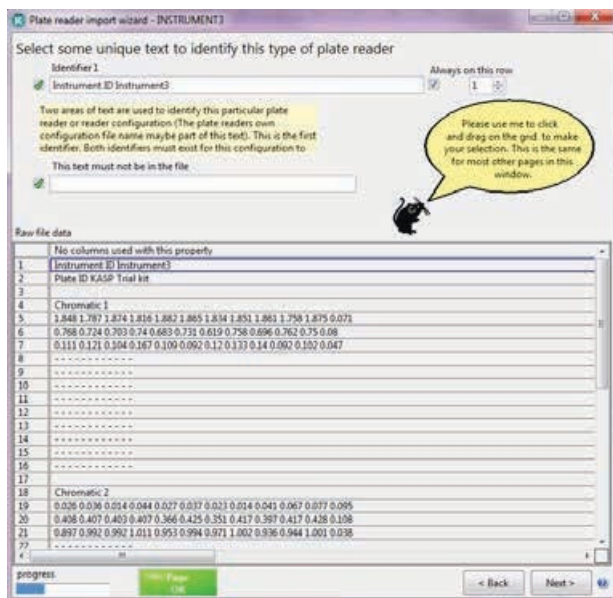
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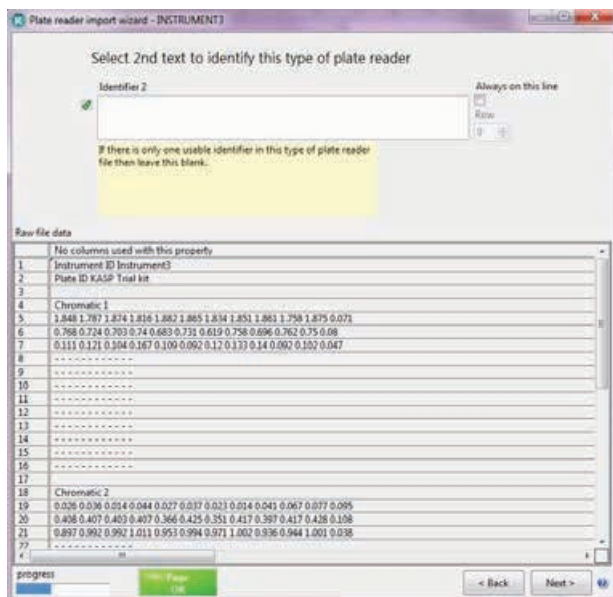
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- Click on the 'unique text' in the file preview. The text will appear in the 'Identifier 1' box, and the red cross will become a green tick. Press 'Next'.



- There is then the option to identify a second set of text as an additional identifier for the file type, but it is not necessary to include this. Either select an appropriate identifier, or leave the box blank, and then press 'Next'.





## KlusterCaller and Kraken Plate Data Import Wizard

- Plate reader import wizard - INSTRUMENTS**

**Data format**

☐ List Values sets are in single columns

☒ Grid Values are arranged like a plate

☐ Rotate plate 180°

Tick here if you have to feed the plate reader the wrong way round

**Data sets**

X is required

☒ Use V (Y2)

☒ Use Z (Y3)

☒ Use Zy (V4)

☐ Use V5

**Well locations**

☐ Names (A1...)

☐ Numbers (1=A1, 2=B1...)

☐ Numbers (1=A1, 2=A2...)

Not used if "Grid" format is used.

☒ Value checking

**Value multiplier**

1

**Value offset**

0

**Maximum value**

0

**Masked out text**

Values are viewed as integers so use a multiplier for low values

Chart adjustment scaling slider controls will use this value

Any value with this text will be flagged as an overloaded cell.

**Plate density**

184 wells

**Project type**

All types

**Reader group**

**Initial status after import**

New

☐ Autocall during test

**Raw file data**

	B	C	D	E	F	G	H	I	J	K
1	Instrument ID	Instrument3								
2	Plate ID	KASP Trial 1								
3										
4	Chromatic 1									
5	1.848	1.787	1.876	1.856	1.882	1.865	1.834	1.851	1.865	1.758
6	0.788	0.701	0.714	0.683	0.721	0.659	0.738	0.696	0.762	0.712
7	0.111	0.121	0.104	0.167	0.109	0.202	0.12	0.133	0.14	0.092
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18	Chromatic 2									
19	0.025	0.036	0.014	0.044	0.027	0.037	0.023	0.014	0.041	0.067
20	0.408	0.407	0.403	0.407	0.366	0.423	0.351	0.417	0.397	0.417
21	0.897	0.992	0.992	1.011	0.953	0.994	0.971	1.002	0.936	0.944
22										

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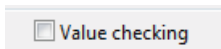
< Back Next >

- 
- Plate reader import wizard - INSTRUMENT3
- Data format
- ☐ List Values sets are in single columns
- ☒ Grid Values are arranged like a plate
- ☐ Rotate plate 180°
- Tick here if you have to feed the plate reader the wrong way round
- Plate density: 36 wells
- Project type: All types
- Data sets
- ☒ X is required
- ☒ Use V (V2)
- ☒ Use Z (V3)
- ☒ Use Zy (V4)
- ☐ Use V5
- Well locations
- ☒ Names (A1...)
- ☒ Numbers (1:A1 2:B1...)
- ☐ Numbers (1:A1 2:A1...)
- Not used if 'Grid' format is used
- ☐ Value checking
- Reader group:
- Value multiplier: 1
- Value offset: 0
- Maximum value: 0
- Chart adjustment: Scaled
- Will use this value
- Maxed out test:
- Initial status after import: New
- Autocall during: ☐
- Raw file data
- |    | A             | B            | C     | D     | E     | F     | G     | H     | I     | J     | K     |
|----|---------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1  | Instrument ID | Instrument3  |       |       |       |       |       |       |       |       |       |
| 2  | Plate ID      | KASP Trial 1 |       |       |       |       |       |       |       |       |       |
| 3  | Chromatic 1   |              |       |       |       |       |       |       |       |       |       |
| 4  | 1.848         | 1.787        | 1.874 | 1.816 | 1.882 | 1.865 | 1.834 | 1.851 | 1.861 | 1.758 | 1.875 |
| 5  | 0.756         | 0.724        | 0.703 | 0.714 | 0.683 | 0.731 | 0.619 | 0.758 | 0.696 | 0.762 | 0.75  |
| 6  | 0.111         | 0.121        | 0.104 | 0.167 | 0.109 | 0.090 | 0.12  | 0.131 | 0.14  | 0.092 | 0.102 |
| 7  | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 8  | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 9  | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 10 | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 11 | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 12 | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 13 | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 14 | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 15 | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 16 | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 17 | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| 18 | Chromatic 2   |              |       |       |       |       |       |       |       |       |       |
| 19 | 0.026         | 0.036        | 0.014 | 0.044 | 0.027 | 0.037 | 0.023 | 0.014 | 0.041 | 0.067 | 0.077 |
| 20 | 0.408         | 0.407        | 0.403 | 0.407 | 0.366 | 0.425 | 0.351 | 0.417 | 0.397 | 0.417 | 0.428 |
| 21 | 0.397         | 0.502        | 0.502 | 1.011 | 0.953 | 0.904 | 0.971 | 1.007 | 0.936 | 0.944 | 1.001 |
| 22 | -             | -            | -     | -     | -     | -     | -     | -     | -     | -     | -     |
- progress
- Fast Lisk
- < Back Next >

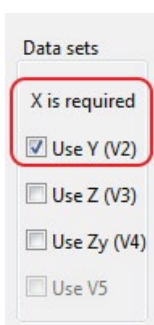
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

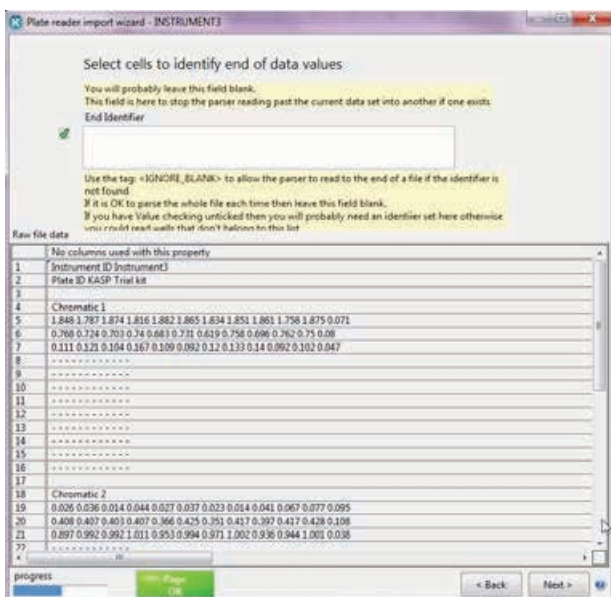
- If your data file does not contain data for a full plate (i.e. all 96 or 384 wells), it is essential to untick the 'Value checking' box.



- If your data file only contains FAM and HEX data (i.e. you have not read ROX), you will also need to edit the 'Data sets' section. In this case, only X and Y data sets should be selected.



- Once all of the relevant sections have been edited, press 'Next'.
- The next window asks you to select cells that identify the end of your data values. This is not required, and you can just press 'Next'.

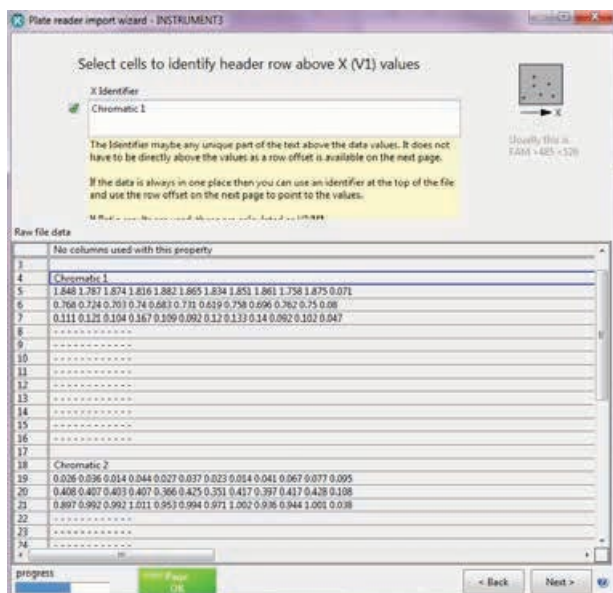




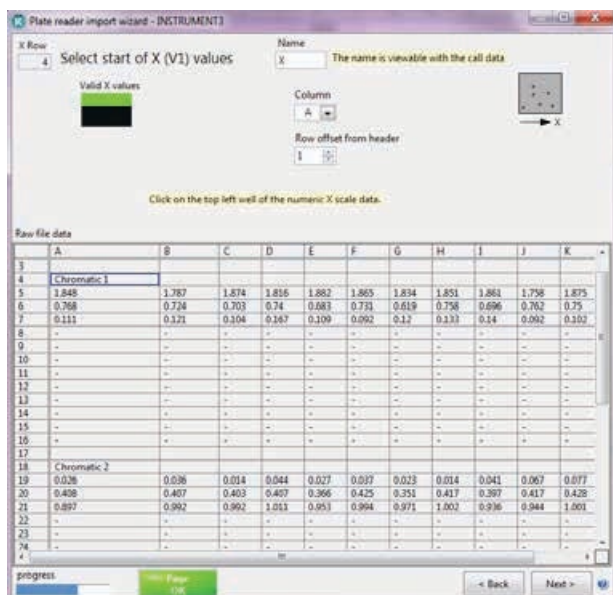
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard then requires a reference to the header row in the data file that appears above the X data values (X = FAM data). Click on the header row (in this example, row 4 can be used), and the contents will appear in the 'X identifier' box at the top of the window. Press 'Next'.



- The wizard then requires information regarding the position of the start of the X data values in the raw data file.



## KlusterCaller and Kraken Plate Data Import Wizard

- [illegible]

- Plate reader import wizard - INSTRUMENT3

Select cells to identify header row above Y (V2) values

Name  
Y

Y Identifier  
Chromatic 2

This field may be the same as the X header if the values are in a different column or the row offset on the next page is different.  
If the same header appears more than once in a file, the first one will always be:

HEX, VIC, XOE +520 +500

Raw file data

	No columns used with this property
17	
18	
19	Chromatic 2
20	0.026 0.036 0.024 0.044 0.027 0.037 0.023 0.034 0.041 0.067 0.077 0.095
21	0.400 0.407 0.403 0.407 0.366 0.425 0.351 0.417 0.387 0.417 0.428 0.108
20	0.897 0.992 0.992 1.011 0.951 0.994 0.971 1.002 0.936 0.944 1.001 0.038
22	.....
23	.....
24	.....
25	.....
26	.....
27	.....
28	.....
29	.....
30	.....
31	.....
32	Chromatic 3
33	1.968 0.281 1.717 8.201 16.75 9.844 16.75 22.28 17.34 8.9 16.65 8.409 16.87 8.538 17.42 7.24 17.41 7.2 16.77 8.126 17.05 32.57 15.93 4.263
34	1370.9192 1373.9818 1366.8134 1363.2411 1349.9952 1244.612 1369.2017 1203.820 1320.6967 1371.8436 1128.0673 1406.6892
35	1447.2954 1326.9121 1355.3702 1234.9818 1297.242 1225.0366 1217.001 1208.0046 1240.3608 1264.87 1171.5349 1219.2067
36	.....
37	.....
38	.....
39	.....
40	.....

progress

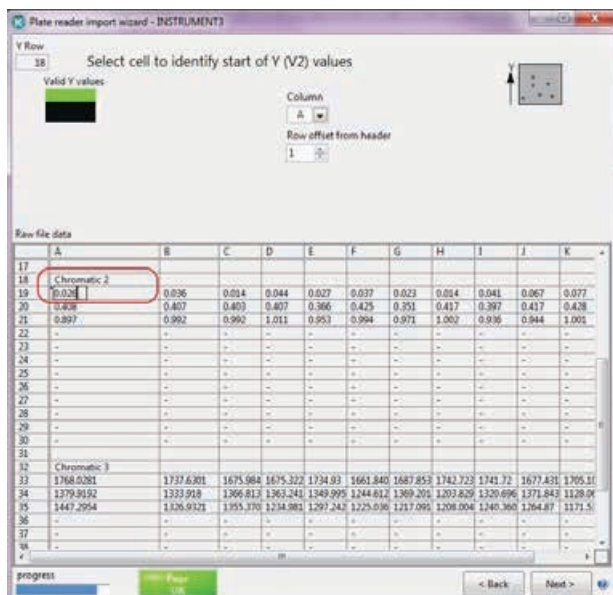
File: 136

< Back Next >

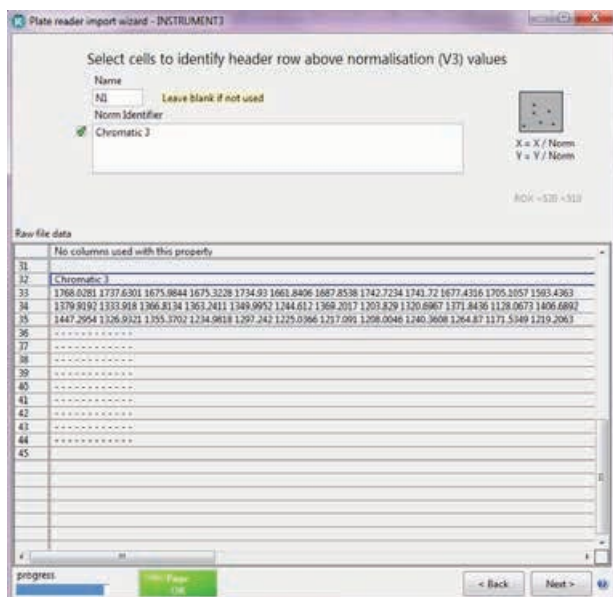
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard then requires information regarding the position of the start of the Y data values in the raw data file. In this example, the Y (HEX) data starts in cell A19 so click on this cell to identify the first Y data value. Press 'Next'.



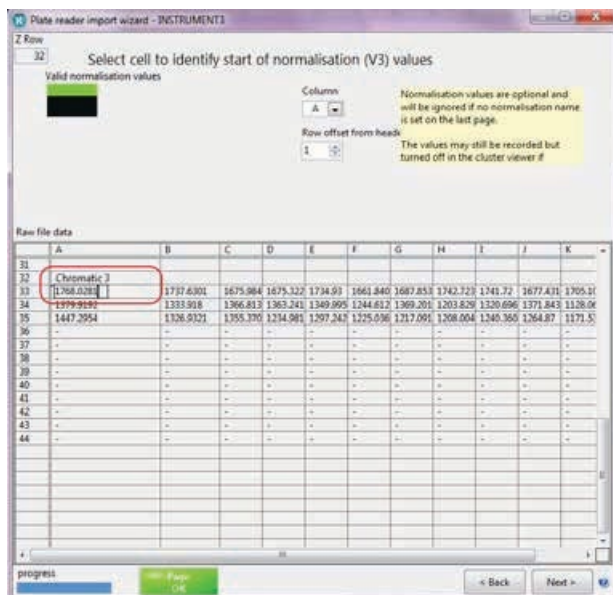
- The wizard then requires a reference to the header row in the data file that appears above the Z data values (Z = ROX data). Scroll down the raw data file and click on the header row (in this example it is row 32), and the contents will appear in the 'Norm identifier' box at the top of the window. Press 'Next'.



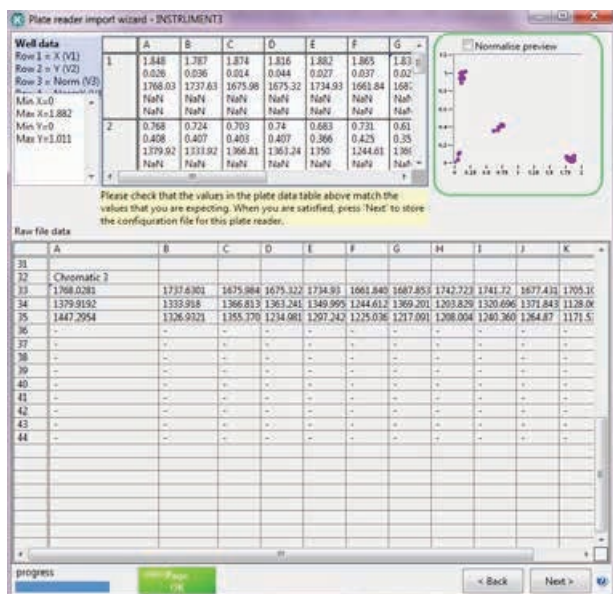
# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

- The wizard then requires information regarding the position of the start of the Z data values in the raw data file. In this example, the Z (ROX) data starts in cell A33 so click on this cell to identify the first Z data value. Press 'Next'.



- The wizard will now show a preview of your data, both as numerical values in a plate layout format and as a cluster plot. If this data looks as expected (i.e. A1 data is shown in the A1 grid layout at the top of the window), click 'Next'.



## KlusterCaller and Kraken Plate Data Import Wizard

- 
- Plate reader import wizard - INSTRUMENT3
- Plate configuration data saved
- Please close this window to continue or step back to make changes.  
Make sure that all the plates on the right are correct.
- All matching plates in this folder  
Instrument 3\_Trial kit data.txt
- progress
- Finish  
OK
- < Back

- [illegible]

# Manual

## KlusterCaller and Kraken Plate Data Import Wizard

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### 5. Summary

In this document, we have outlined how to import the three most common formats of genotyping data using the plate configuration wizard. Using these examples, the same process can be applied to other data formats if your file does not match these exactly.

The KlusterCaller manual can be accessed from the Help menu within KlusterCaller and contains a lot of basic information about how to start using KlusterCaller for analysis of your genotyping data.

Should you need any further assistance or have a question not addressed in the manual please the technical support team (contact details below).

### 6. Further support

If you require additional support, please contact our technical support team at [techsupport@lgcgroup.com](mailto:techsupport@lgcgroup.com).





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