

# Applied Biosystems™ 3500/3500xL Genetic Analyzers: How to Create and Modify a Plate Record Template

## Summary

1. Create a plate that will form the template in the Data Collection Software and export it.
2. Modify the plate name and samples on the template and save as a new file.
3. Import the file into the Data Collection Software.

## Creating the Template

1. Turn on the system:
  - Turn on the computer, get to the login screen but do not log in.
  - Turn on the instrument and wait for the status light to turn green.
  - Log in to the computer and wait for the Integration Service to launch (green checkmark in lower right corner of screen).
  - Launch the Data Collection Software.
2. Go to Library → Plates. Fill in the sample names into each field and assign an assay, File Name Convention, and Results Group to each sample.

## Plate Properties for Sequencing and Fragment Analysis

### Plate View

The screenshot displays the Applied Biosystems software interface. The main window shows a plate view for a sequencing plate. The plate grid is 8 rows (A-H) by 12 columns (1-12). Each well contains a sample name (e.g., s1, s9, s17, etc.) and a small image of a DNA double helix. The configuration panel at the bottom is divided into three sections: Assays, File Name Conventions, and Results Groups. The Assays section shows 'Fast\_Seq\_Assay\_xL-POP7' selected. The File Name Conventions section shows 'My\_FNC' selected. The Results Groups section shows 'My\_Sequencing\_Results\_...' selected. The interface also includes a sidebar with navigation options like 'Run Instrument', 'Review Results', and 'View Sequencing Results'.

## Table View

The screenshot displays the 'Table View' of a sequencing plate in the Applied Biosystems software. The 'Export' button in the top toolbar is circled in red. The table below shows the following data:

Well	Sample Name	Assay	File Name Convention	Results Group	Sample Type	User Defined Field	Comm				
1	A01	s1	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
2	B01	s2	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
3	C01	s3	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
4	D01	s4	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
5	E01	s5	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
6	F01	s6	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
7	G01	s7	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
8	H01	s8	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
9	A02	s9	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
10	B02	s10	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
11	C02	s11	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
12	D02	s12	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
13	E02	s13	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
14	F02	s14	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
15	G02	s15	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
16	H02	s16	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
17	A03	s17	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
18	B03	s18	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
19	C03	s19	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
20	D03	s20	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
21	E03	s21	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
22	F03	s22	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					
23	G03	s23	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample					

Below the table, there are sections for 'Assays', 'File Name Conventions', and 'Results Groups', each with a list of items and action buttons. The 'Assays' section contains 'Fast\_Seq\_Assay\_xL-POP7'. The 'File Name Conventions' section contains 'My\_FNC'. The 'Results Groups' section contains 'My\_Sequencing\_Results\_...'. The 'Name: Test Seq Plate1' and 'Barcode:' fields are also visible.

3. When complete, click the Export button and save it on your computer. The plate record will be saved as a tab-delimited text file.

## Modifying the Template

Open the template file using a spreadsheet program and save the file as the name of the new plate record you are about to create.

## Plate Template

In order to successfully re-import the modified plate record, you will need to change the following fields:

- Plate Name (Cell A4)
- Sample Name = Sample Name. When entering the new name, be careful that you do not inadvertently add a space to the end of the sample name as that will cause a problem with importing the plate record.

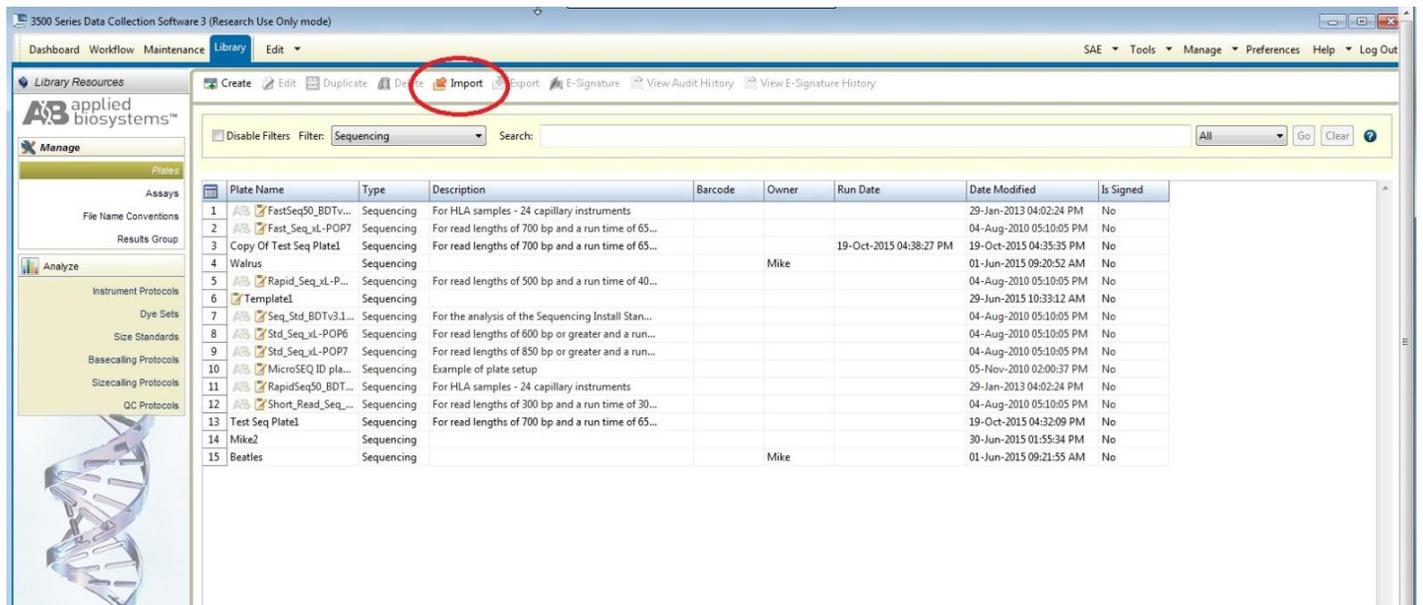
	A	B	C	D	E	F	G	H	I
1	3500 Plate Layout File Version 1.0								
2									
3	Plate Name	Application Type	Capillary Length (cm)	Polymer	Number of Wells	Owner Name	Barcode Number	Comments	
4	Test Seq Plate demo	Sequencing	50	POP7		96		For read lengths of 7	
5									
6	Well	Sample Name	Assay	File Name	Results Group	Sample Type	User Defined Field 1	User Defir	User Defir
7	A01	s1	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
8	B01	s2	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
9	C01	s3	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
10	D01	s4	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
11	E01	s5	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
12	F01	s6	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
13	G01	s7	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
14	H01	s8	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
15	A02	s9	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
16	B02	s10	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
17	C02	s11	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
18	D02	s12	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
19	E02	s13	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
20	F02	s14	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
21	G02	s15	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
22	H02	s16	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
23	A03	s17	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
24	B03	s18	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
25	C03	s19	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
26	D03	s20	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
27	E03	s21	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
28	F03	s22	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
29	G03	s23	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
30	H03	s24	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			
31	A04	s25	Fast_Seq_Assay_xL-POP7	My_FNC	My_Sequencing_Results_Group	Sample			

## General Notes

- If you make changes to other fields such as Analysis Protocols, Analysis Methods, Size Standards, etc. the spelling must be identical to what is in the Data Collection Software. All fields except Sample Name are case sensitive. If you are having trouble importing the plate records after making a modification, you may want to create another template within the Data Collection Software with the changes and export it.
- Illegal characters will be flagged on import, but there are other characters that are not illegal but can corrupt the files: #, commas, “, \*, non-english letters or characters (e.g. α, β, γ). English alpha-numeric characters with dashes or underscores as separators are the safest.

## Importing the Plate Record

1. After making modifications, save the file and transfer it to the instrument computer if working on a different one.
2. Open the Data Collection Software and click on Library and select Plates from the menu on the left.
3. Click the “Import...” button and import the plate. If the plate imports successfully, you will get a message indicating it.



The screenshot shows the 'Library Resources' window in the 3500 Series Data Collection Software. The 'Library' tab is selected, and the 'Plates' section is active in the left sidebar. The 'Import' button is circled in red. Below the toolbar, a table lists various plate records with columns for Plate Name, Type, Description, Barcode, Owner, Run Date, Date Modified, and Is Signed.

Plate Name	Type	Description	Barcode	Owner	Run Date	Date Modified	Is Signed
1 ARB FastSeq50_BDTv...	Sequencing	For HLA samples - 24 capillary instruments				29-Jan-2013 04:02:24 PM	No
2 ARB Fast_Seq_xL-POP7	Sequencing	For read lengths of 700 bp and a run time of 65...				04-Aug-2010 05:10:05 PM	No
3 Copy Of Test Seq Plate1	Sequencing	For read lengths of 700 bp and a run time of 65...			19-Oct-2015 04:38:27 PM	19-Oct-2015 04:35:35 PM	No
4 Walrus	Sequencing			Mike		01-Jun-2015 09:20:52 AM	No
5 ARB Rapid_Seq_xL-P...	Sequencing	For read lengths of 500 bp and a run time of 40...				04-Aug-2010 05:10:05 PM	No
6 Templat1	Sequencing					29-Jun-2015 10:33:12 AM	No
7 ARB Seq_Std_BDTv3.1...	Sequencing	For the analysis of the Sequencing Install Stan...				04-Aug-2010 05:10:05 PM	No
8 ARB Std_Seq_xL-POP6	Sequencing	For read lengths of 600 bp or greater and a run...				04-Aug-2010 05:10:05 PM	No
9 ARB Std_Seq_xL-POP7	Sequencing	For read lengths of 850 bp or greater and a run...				04-Aug-2010 05:10:05 PM	No
10 ARB MicroSeq_ID pla...	Sequencing	Example of plate setup				05-Nov-2010 02:00:37 PM	No
11 ARB RapidSeq50_BDT...	Sequencing	For HLA samples - 24 capillary instruments				29-Jan-2013 04:02:24 PM	No
12 ARB Short_Read_Seq...	Sequencing	For read lengths of 300 bp and a run time of 30...				04-Aug-2010 05:10:05 PM	No
13 Test Seq Plate1	Sequencing	For read lengths of 700 bp and a run time of 65...				19-Oct-2015 04:32:09 PM	No
14 Mike2	Sequencing					30-Jun-2015 01:55:34 PM	No
15 Beatles	Sequencing			Mike		01-Jun-2015 09:21:55 AM	No