Gen5™ File Export
## Creating a File to Export to LIMs/LIS

Introduction

Many commercially available LIMs/LIS applications can easily import text files (*.txt) from instrument control and analysis software programs like Gen5. This Tech Note describes the steps required to create a custom *.txt containing the required data, using the File Export Builder feature in the Gen5 protocol. The File Export Builder allows a user to create a template containing only the data that needs to be exported in the file, in either a column (table) or matrix (grid) format. See the example screens in the Appendix.

This Tech Note also describes the Gen5 protocol options available to define the exported file path, manual or automatic exporting and information about exporting each plate's data to its own file or appending multiple plates to a single file.

Step 1: Select the data to be exported using the **File Export Builder**

a) Open the Gen5 protocol file
b) Double-click the File Export Builder in the protocol menu:
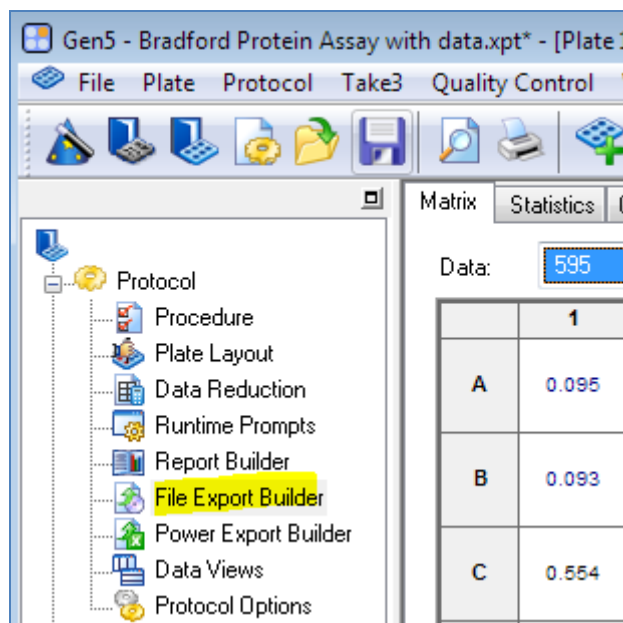
c) In the File Export Builder, select data to be included in the export file from the **Available Data Views** list. "Matrix" data views will export data in a microplate matrix or grid format. "Table" views will export data in a column format. Table format is more commonly used for data that will be sent to a LIMs/LIS.

In the screen below, we've selected 595 nm data, then clicked Add to add this to the **Export Content**:
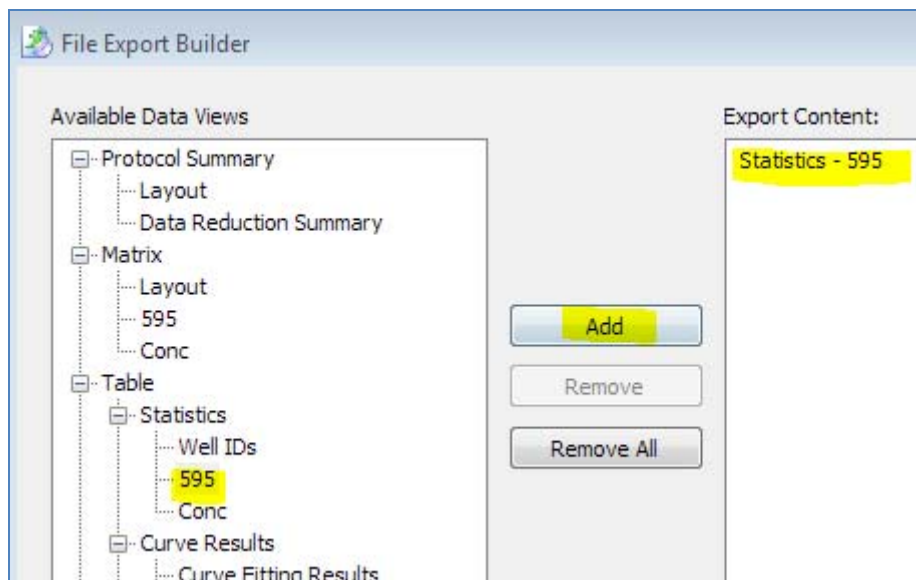
d) Double-click on the item in the Export Content window to edit the contents. In this dialog, you may:
1. Change the name of the contents
2. Choose the well types to be included in the file (in the Selection tab, check all desired types)
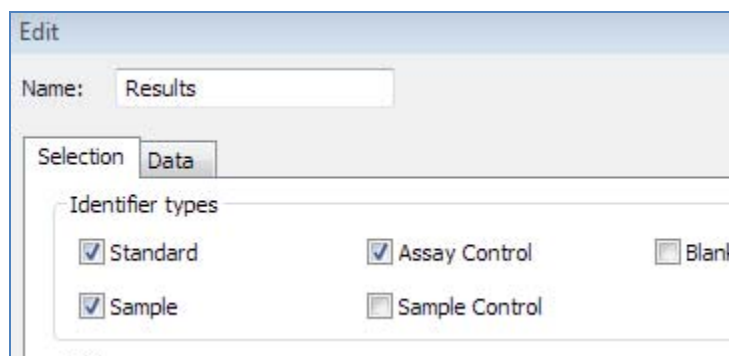
3. In the Data tab, select the type of data to be included. Several pieces of data are included by default. Any can be removed by right-mouse clicking and choosing Delete. Others may be added by clicking in an open row under the Data header:

Step 2: Define the **File Export Settings**

    a)   The **Protocol Options|File Export Settings** screen is shown below. In this screen, several default selections are made, but all can be modified.

        1.   The File Naming Convention should use the Extension "txt". By default, the Experiment name is selected as the File Name. To change this, click the right arrow at the end of the File Name field, and choose the desired File Name parameter from the list.

        2.   Select the appropriate path for the File Location

        3.   It is best to de-select all of the "Include" options; Separator should be selected by the LIMs/LIS requirement.

        4.   In the "When Exporting …" box, select the desired prompt. *Note that if you wish to send multiple plates to a <u>single</u> Export file, you must choose the "Never, …" and Append option.*

    b)   To Export the data, highlight the **Plate** containing the data to be exported - right-mouse click to see the menu. Choose "File Export". The data will be sent to the path specified in Step 2 above.

Step 3: Export the Data

Data can be exported from Gen5 either manually or automatically after each plate is read.

a) To Export the data automatically after each plate is read, go to Protocol|Auto Output Options and select Execute File Export:
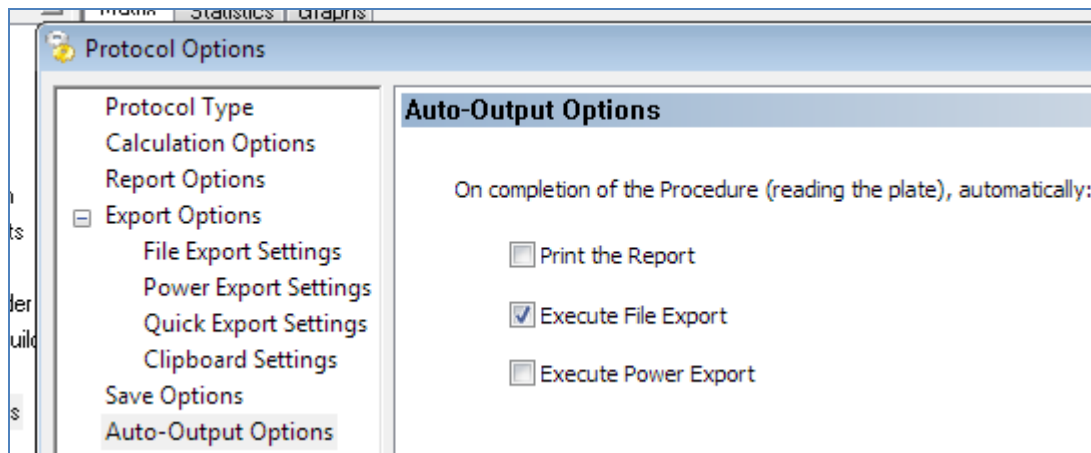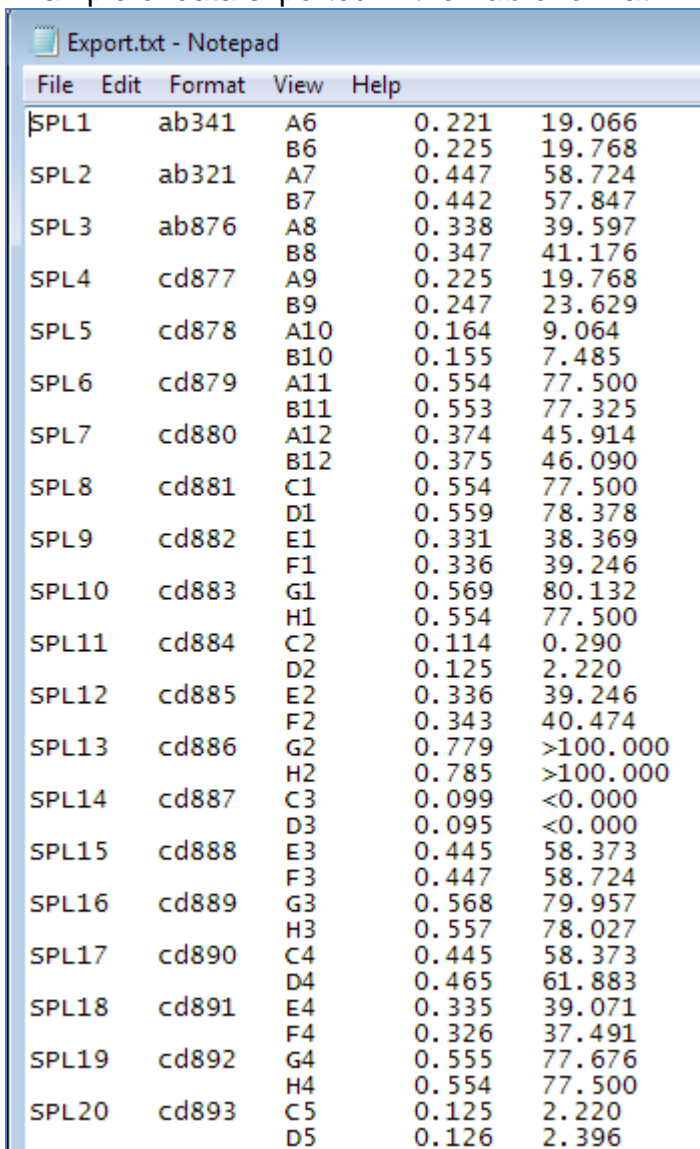
Each time a plate is read in the experiment file, the data will be automatically exported to the path defined in Step 2.

b) To Export data manually from Gen5 to a *.txt file, first Read the plate. When reading is complete, right mouse click on the Plate in the menu tree and choose File Export. The data will be exported to the path defined in Step 2. If more than one plate exists in the Experiment, all plates can be highlighted and then exported.

APPENDIX

Example of data exported in the **Table** format:

```
Export.txt - Notepad
File  Edit  Format  View  Help
SPL1      ab341    A6     0.221   19.066
                   B6     0.225   19.768
SPL2      ab321    A7     0.447   58.724
                   B7     0.442   57.847
SPL3      ab876    A8     0.338   39.597
                   B8     0.347   41.176
SPL4      cd877    A9     0.225   19.768
                   B9     0.247   23.629
SPL5      cd878    A10    0.164   9.064
                   B10    0.155   7.485
SPL6      cd879    A11    0.554   77.500
                   B11    0.553   77.325
SPL7      cd880    A12    0.374   45.914
                   B12    0.375   46.090
SPL8      cd881    C1     0.554   77.500
                   D1     0.559   78.378
SPL9      cd882    E1     0.331   38.369
                   F1     0.336   39.246
SPL10     cd883    G1     0.569   80.132
                   H1     0.554   77.500
SPL11     cd884    C2     0.114   0.290
                   D2     0.125   2.220
SPL12     cd885    E2     0.336   39.246
                   F2     0.343   40.474
SPL13     cd886    G2     0.779   >100.000
                   H2     0.785   >100.000
SPL14     cd887    C3     0.099   <0.000
                   D3     0.095   <0.000
SPL15     cd888    E3     0.445   58.373
                   F3     0.447   58.724
SPL16     cd889    G3     0.568   79.957
                   H3     0.557   78.027
SPL17     cd890    C4     0.445   58.373
                   D4     0.465   61.883
SPL18     cd891    E4     0.335   39.071
                   F4     0.326   37.491
SPL19     cd892    G4     0.555   77.676
                   H4     0.554   77.500
SPL20     cd893    C5     0.125   2.220
                   D5     0.126   2.396
```

Example of data exported in the **Matrix** format:

```
Export2.txt - Notepad
File   Edit   Format   View   Help

STD1     STD2     STD3     STD4     STD5     SPL1     SPL2     SPL3     SPL4     SPL5     SPL6     SPL7
                                             ab341    ab321    ab876    cd877    cd878    cd879    cd880
0.095    0.173    0.271    0.405    0.675    0.221    0.447    0.338    0.225    0.164    0.554    0.374
0.095    0.173    0.271    0.405    0.675    0.221    0.447    0.338    0.225    0.164    0.554    0.374
STD1     STD2     STD3     STD4     STD5     SPL1     SPL2     SPL3     SPL4     SPL5     SPL6     SPL7
                                             ab341    ab321    ab876    cd877    cd878    cd879    cd880
0.093    0.167    0.269    0.415    0.669    0.225    0.442    0.347    0.247    0.155    0.553    0.375
0.093    0.167    0.269    0.415    0.669    0.225    0.442    0.347    0.247    0.155    0.553    0.375
SPL8     SPL11    SPL14    SPL17    SPL20    SPL23    SPL26    SPL29    SPL32    SPL35    SPL38    SPL41
cd881    cd884    cd887    cd890    cd893    cd896    cd899    cd902    cd905    cd908    cd911    cd914
0.554    0.114    0.099    0.445    0.125    0.442    0.664    0.442    0.354    0.114    0.339    0.487
0.554    0.114    0.099    0.445    0.125    0.442    0.664    0.442    0.354    0.114    0.339    0.487
SPL8     SPL11    SPL14    SPL17    SPL20    SPL23    SPL26    SPL29    SPL32    SPL35    SPL38    SPL41
cd881    cd884    cd887    cd890    cd893    cd896    cd899    cd902    cd905    cd908    cd911    cd914
0.559    0.125    0.095    0.465    0.126    0.457    0.655    0.451    0.345    0.116    0.334    0.468
0.559    0.125    0.095    0.465    0.126    0.457    0.655    0.451    0.345    0.116    0.334    0.468
SPL9     SPL12    SPL15    SPL18    SPL21    SPL24    SPL27    SPL30    SPL33    SPL36    SPL39    SPL42
cd882    cd885    cd888    cd891    cd894    cd897    cd900    cd903    cd906    cd909    cd912    cd915
0.331    0.336    0.445    0.335    0.198    0.337    0.472    0.231    0.332    0.098    0.246    0.214
0.331    0.336    0.445    0.335    0.198    0.337    0.472    0.231    0.332    0.098    0.246    0.214
SPL9     SPL12    SPL15    SPL18    SPL21    SPL24    SPL27    SPL30    SPL33    SPL36    SPL39    SPL42
cd882    cd885    cd888    cd891    cd894    cd897    cd900    cd903    cd906    cd909    cd912    cd915
0.336    0.343    0.447    0.326    0.187    0.329    0.493    0.216    0.390    0.102    0.258    0.199
0.336    0.343    0.447    0.326    0.187    0.329    0.493    0.216    0.390    0.102    0.258    0.199
SPL10    SPL13    SPL16    SPL19    SPL22    SPL25    SPL28    SPL31    SPL34    SPL37    SPL40    SPL43
cd883    cd886    cd889    cd892    cd895    cd898    cd901    cd904    cd907    cd910    cd913    cd916
0.569    0.779    0.568    0.555    0.201    0.998    0.553    0.222    0.559    0.241    0.557    0.661
0.569    0.779    0.568    0.555    0.201    0.998    0.553    0.222    0.559    0.241    0.557    0.661
SPL10    SPL13    SPL16    SPL19    SPL22    SPL25    SPL28    SPL31    SPL34    SPL37    SPL40    SPL43
cd883    cd886    cd889    cd892    cd895    cd898    cd901    cd904    cd907    cd910    cd913    cd916
0.554    0.785    0.557    0.554    0.195    1.025    0.549    0.221    0.567    0.251    0.568    0.641
0.554    0.785    0.557    0.554    0.195    1.025    0.549    0.221    0.567    0.251    0.568    0.641
```