718286-AA
July 2001

CEQ™2000XL

DNA Analysis System

Beckman Coulter AFLP Dominant Scoring Software

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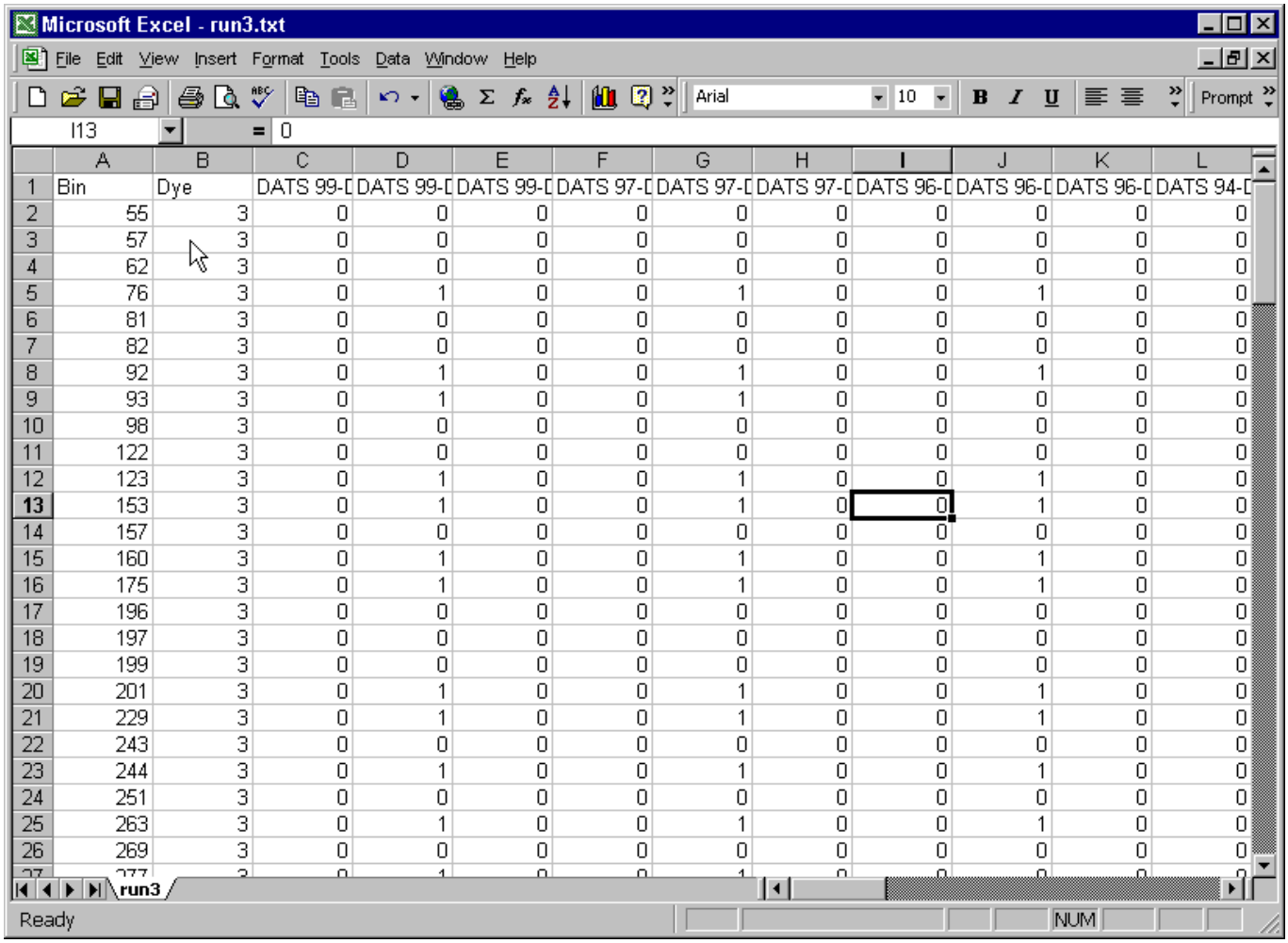
Beckman Coulter AFLP Dominant Scoring Software

The AFLP Dominant Scoring module has been developed as "freeware" software to allow you to rapidly score your AFLP fingerprints with output as a text format which is compatible with most statistical and pattern matching software. We recommend the use of Microsoft Excel to review the output of this software and to further manipulate and parse the data. As this software was developed as freeware its support will be limited to e-mail with a dedicated address at ceqhelp@beckmancoulter.com. All questions on the installation and operation of this product should be addressed to the CEQHELP e-mail address.

This software module generates a cluster analysis of your data to bin either the presence or absence of a fragment of a given size per sample. This is represented as either a 1 or 0 at a given size. An example of the output is shown below:

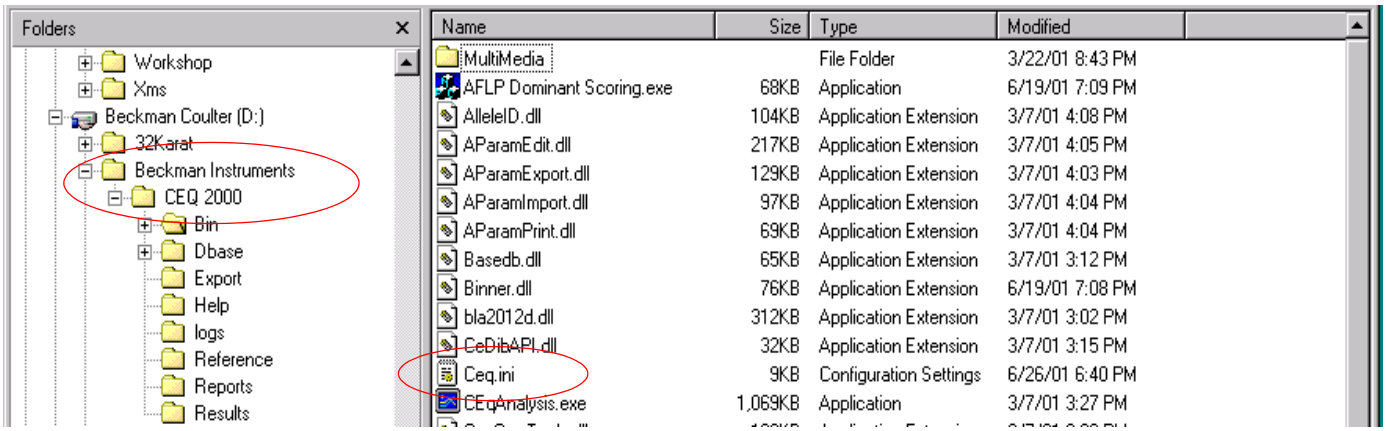
An example of Result



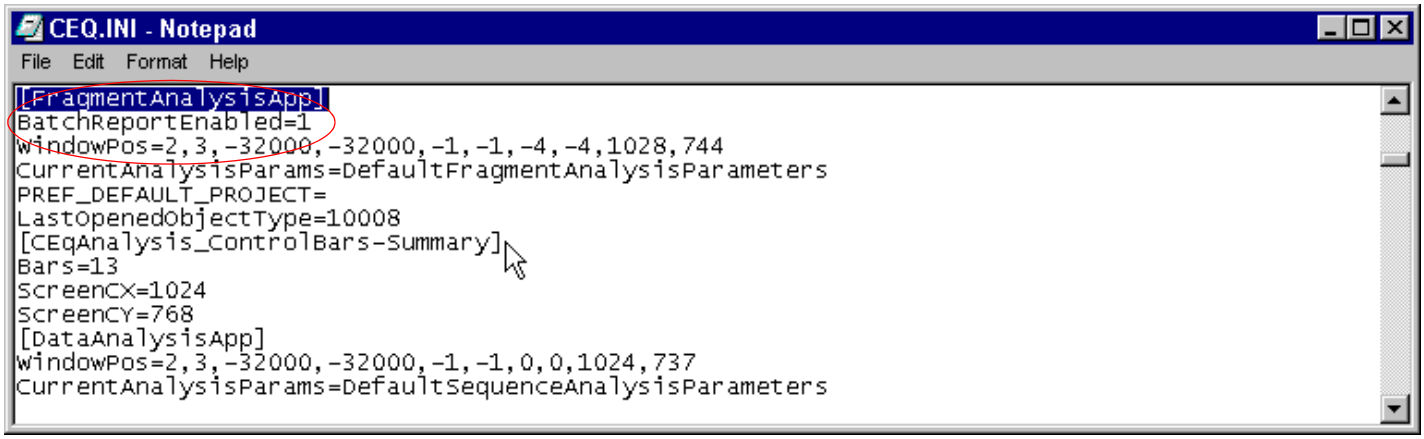
Installation – AFLP Dominant Scoring Software

In order to install CEQ™ AFLP Dominant Scoring Software onto your CEQ 2000XL system, the ***CEQ.ini*** file has to be edited as follows:

1. Open the ***Ceq.ini*** file in the Beckman Instruments\CEQ 2000\Bin directory for editing

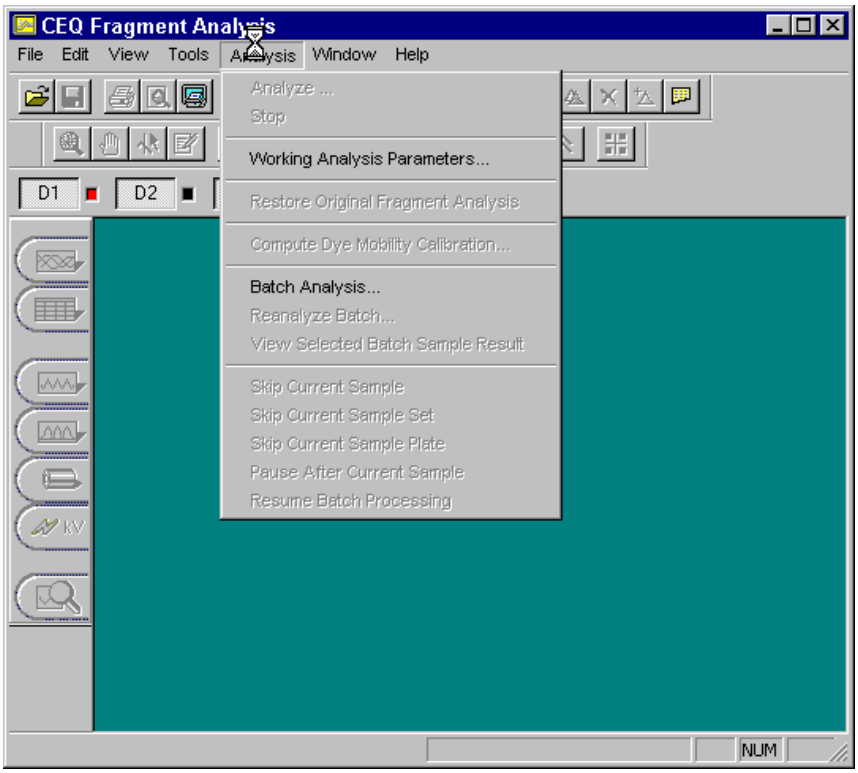


2. Add a line with the text "**BatchReportEnabled=1**" immediately after the line that says "[**FragmentAnalysisApp]**"; Save and close the ***Ceq.ini*** file.



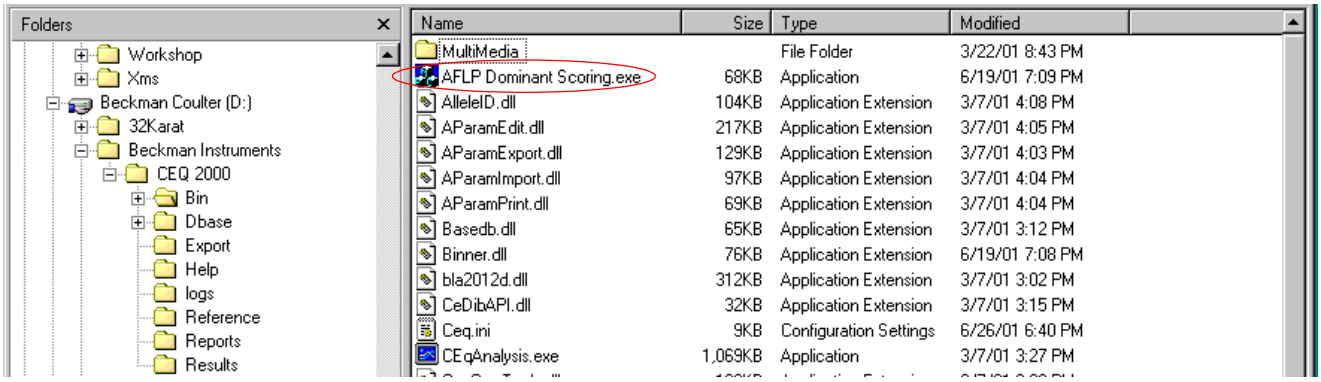
AFLP Dominant Scoring Software is designed to operate on Fragment Analysis results that have been stored in Batch Analysis Report files created as a result of running ***Batch Analysis***.

From the Fragment Analysis Module of the CEQ 2000XL software, select the Batch Analysis option from the Analysis menu. Choose the data to be analyzed, select the Analysis Parameters, and perform Batch Analysis.

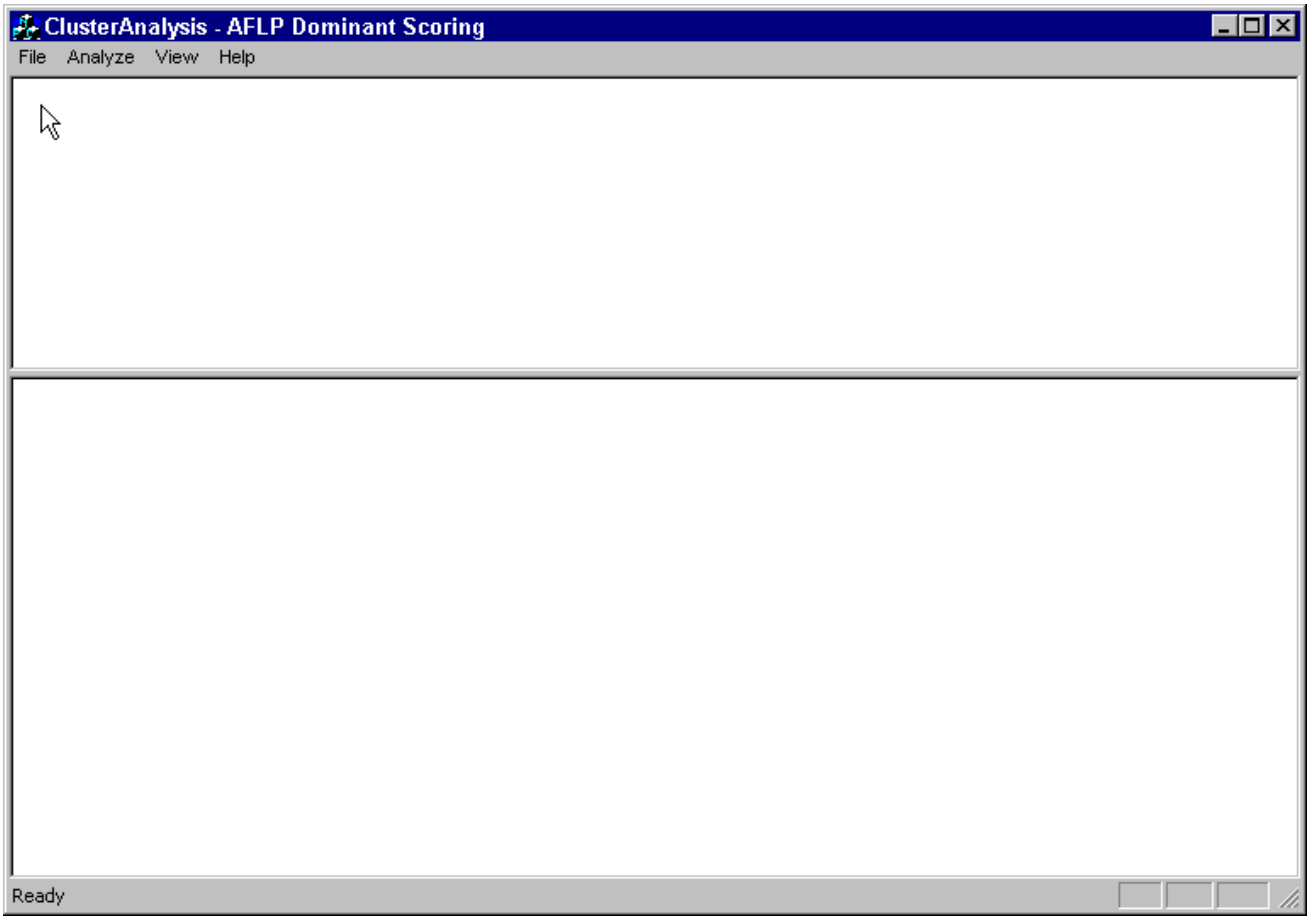


A Batch Analysis Report (with a .csv extension) will be generated and stored in the Reports directory under Beckman Instruments\CEQ 2000. Create Batch Analysis Reports for the data to be analyzed by the AFLP Dominant Scoring Software.

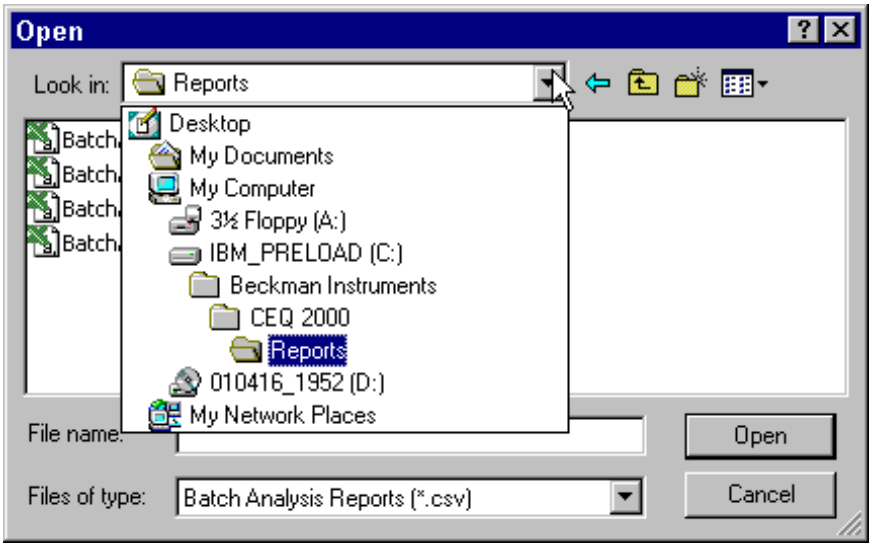
Using NT Explorer, Navigate to the Beckman Instruments\CEQ 2000\Bin directory and double-click on the **AFLP Dominant Scoring.exe** icon:

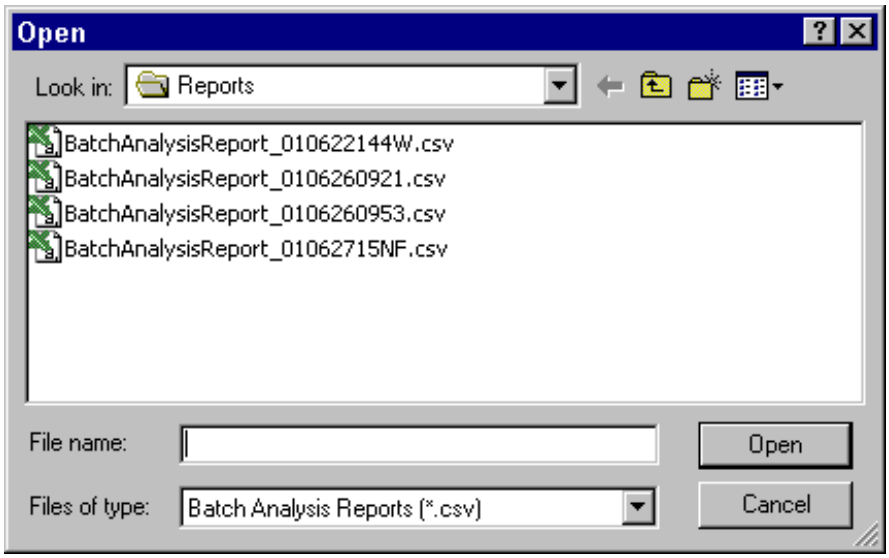


Use the File/Select menu option to choose the **BatchAnalysisReport** you wish to include:

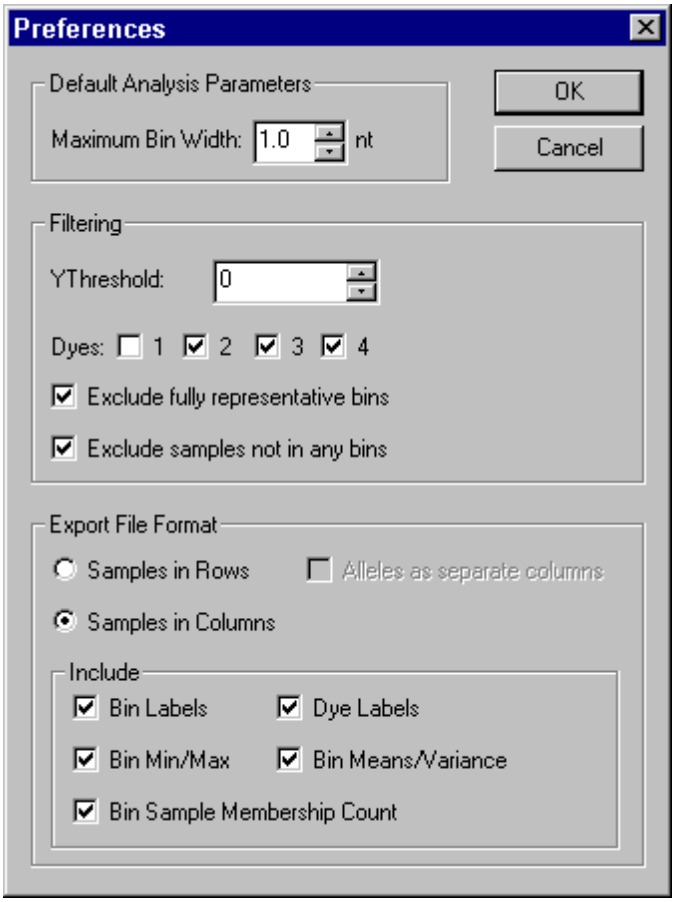


The ***BatchAnalysisReport*** is found in the Beckman Instruments\CEQ2000\Reports directory:





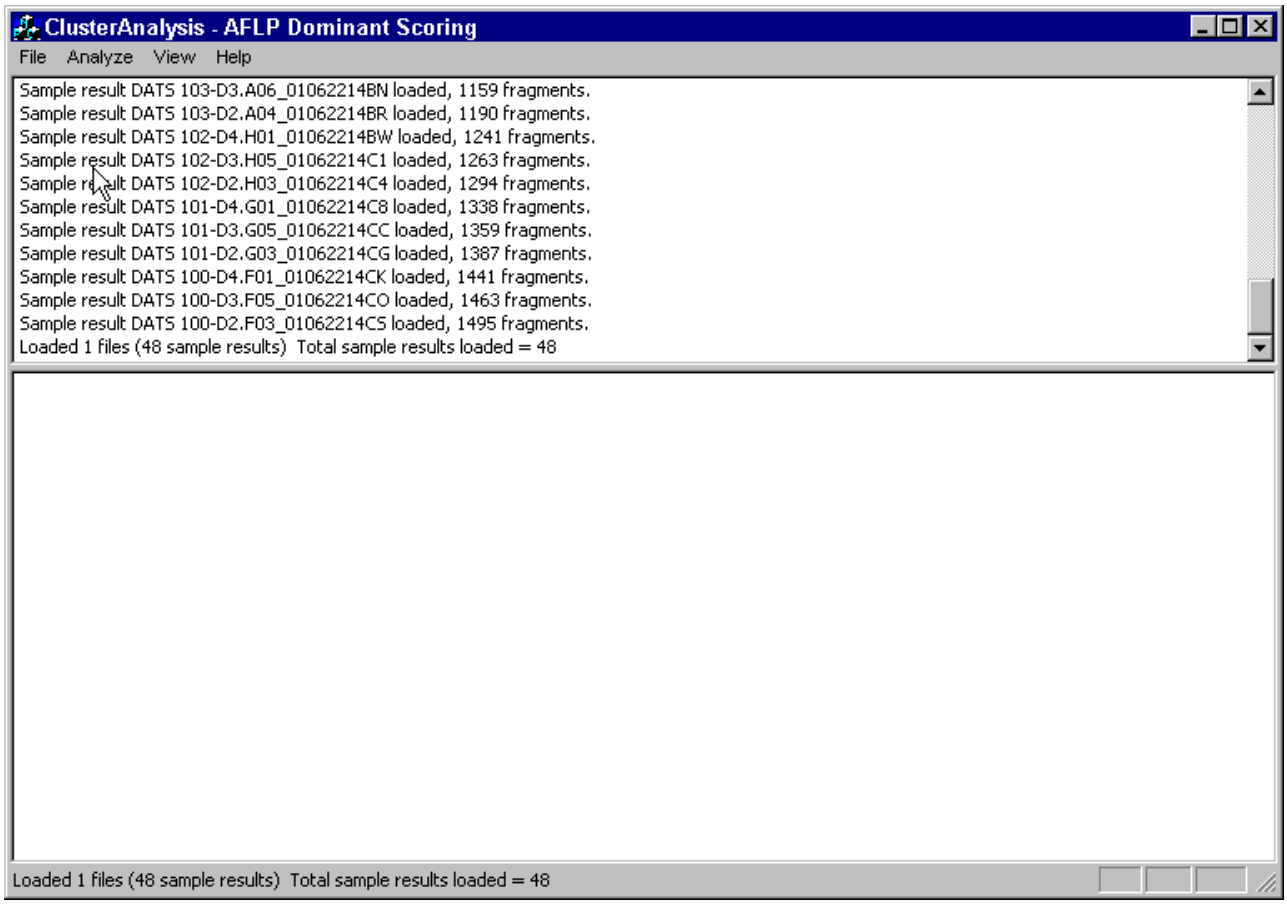
Set the Preferences (in the File menu) for the analysis:
The Maximum Bin Width from 0.4 to 10.0 nt. can be set in the Default Analysis Parameters- the default value is 1.0 nt. The Y threshold can be set between 0 and 10,000 to exclude bins below the set threshold.



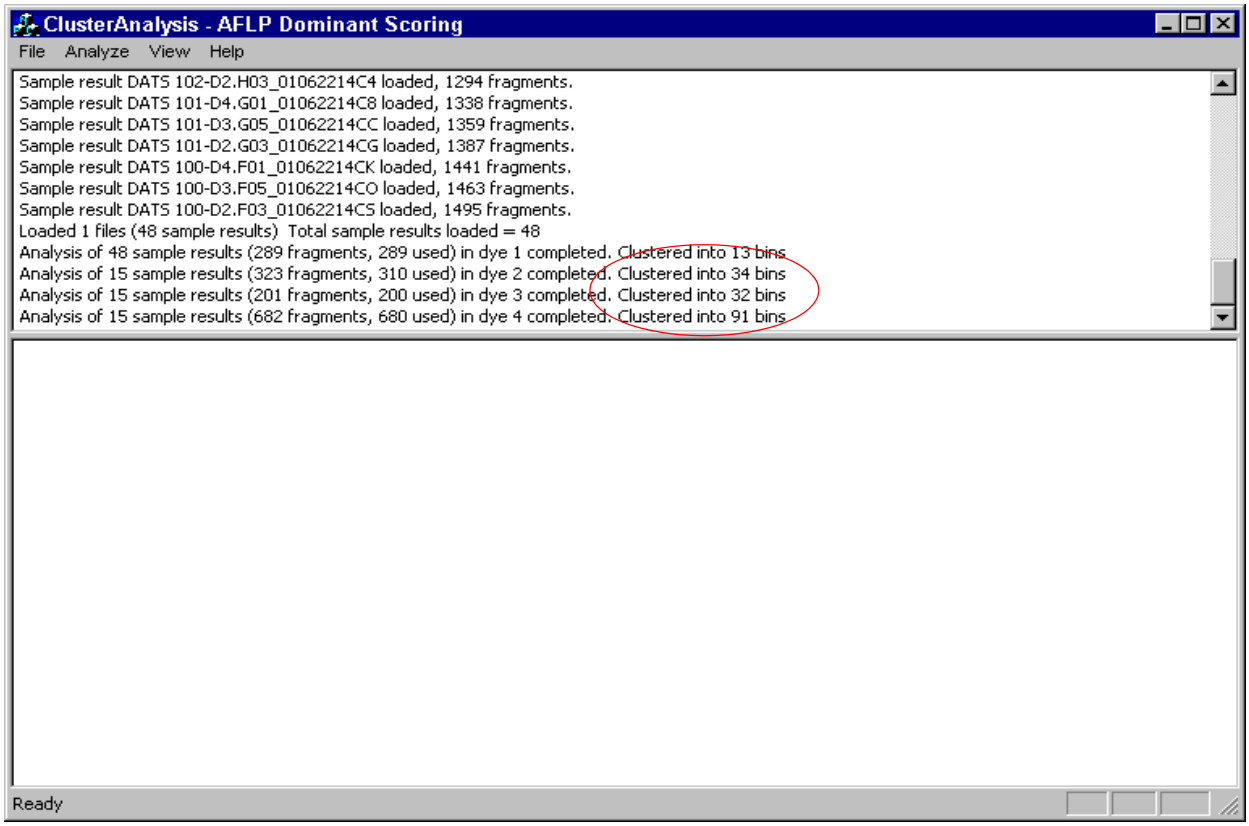
The “fully representative bins” and/or “samples not in any bins” can also be excluded from the report by checking the appropriate boxes in the Preference. Select the appropriate dyes to be exported.

Click **OK** to accept the setting and perform the analysis.

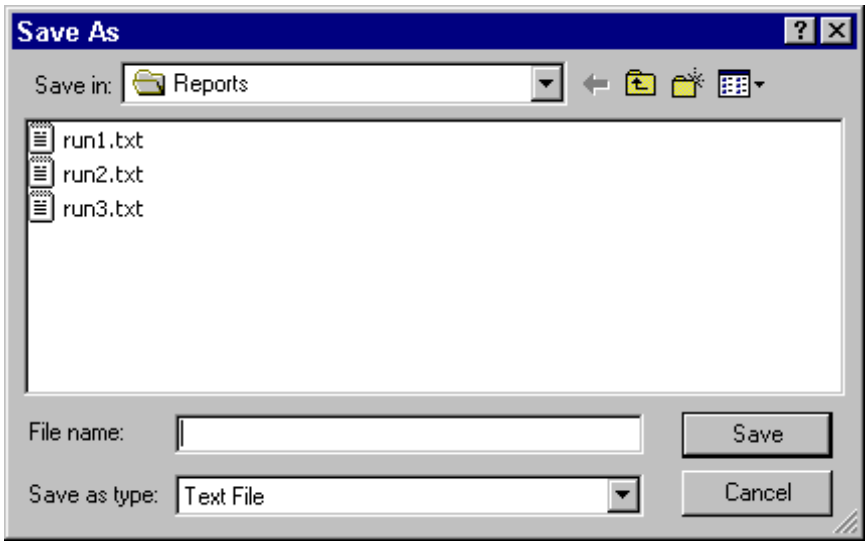
Use the Analyze option to perform the clustering operation



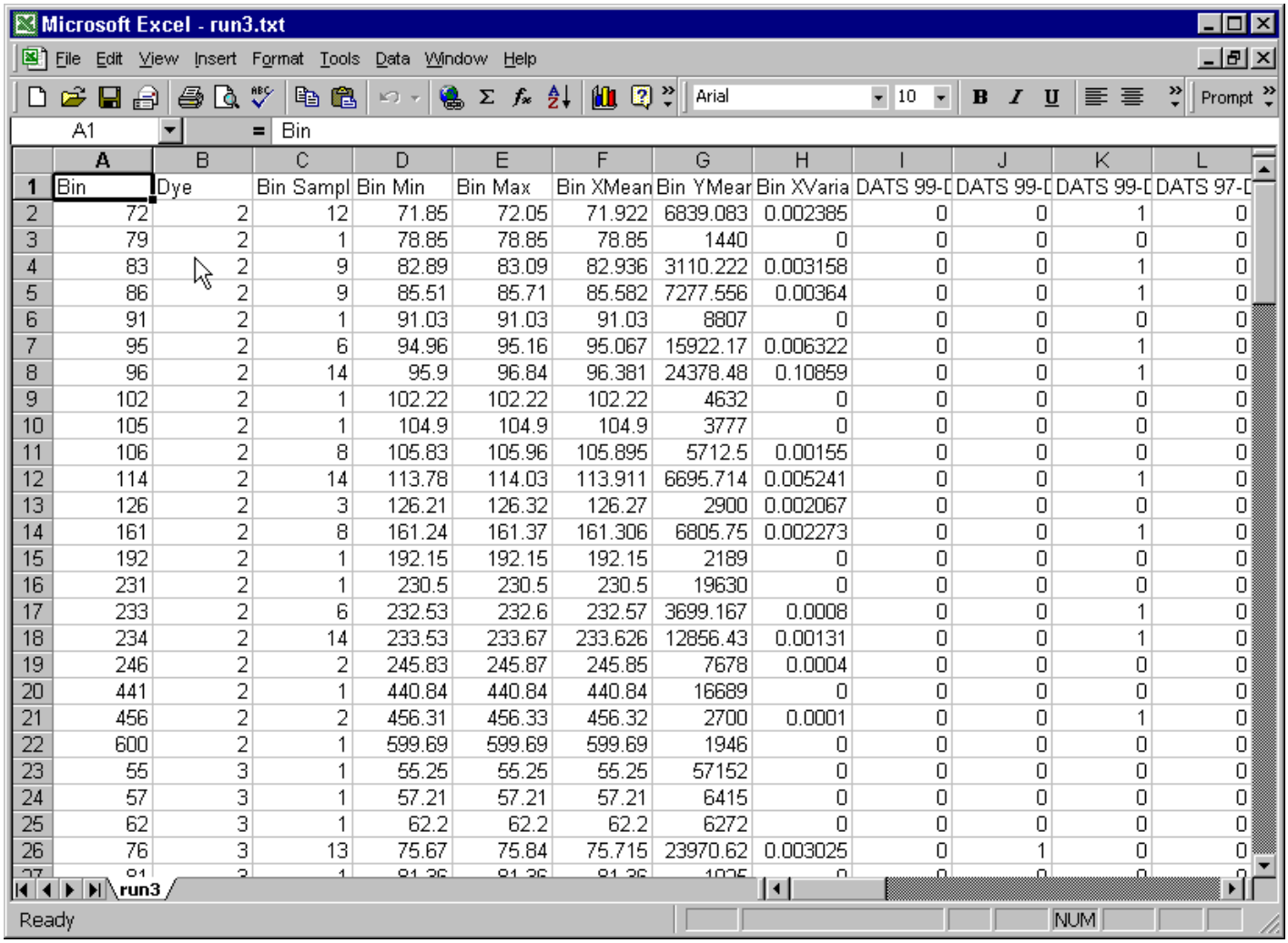
When Analysis is completed the following information is displayed:



Export the results (File/Export) as a .txt file, which can be pasted in MS Excel



Open MS Excel and select appropriate file - the ***Result Output*** is displayed:



Microsoft Excel - run3.txt

File Edit View Insert Format Tools Data Window Help

Arial 10 B I U Prompt

A1 = Bin

	A	B	C	D	E	F	G	H	I	J	K	L
1	Bin	Dye	Bin Sampl	Bin Min	Bin Max	Bin XMean	Bin YMear	Bin XVaria	DATS 99-[	DATS 99-[	DATS 99-[	DATS 97-[
2	72	2	12	71.85	72.05	71.922	6839.083	0.002385	0	0	1	0
3	79	2	1	78.85	78.85	78.85	1440	0	0	0	0	0
4	83	2	9	82.89	83.09	82.936	3110.222	0.003158	0	0	1	0
5	86	2	9	85.51	85.71	85.582	7277.556	0.00364	0	0	1	0
6	91	2	1	91.03	91.03	91.03	8807	0	0	0	0	0
7	95	2	6	94.96	95.16	95.067	15922.17	0.006322	0	0	1	0
8	96	2	14	95.9	96.84	96.381	24378.48	0.10859	0	0	1	0
9	102	2	1	102.22	102.22	102.22	4632	0	0	0	0	0
10	105	2	1	104.9	104.9	104.9	3777	0	0	0	0	0
11	106	2	8	105.83	105.96	105.895	5712.5	0.00155	0	0	0	0
12	114	2	14	113.78	114.03	113.911	6695.714	0.005241	0	0	1	0
13	126	2	3	126.21	126.32	126.27	2900	0.002067	0	0	0	0
14	161	2	8	161.24	161.37	161.306	6805.75	0.002273	0	0	1	0
15	192	2	1	192.15	192.15	192.15	2189	0	0	0	0	0
16	231	2	1	230.5	230.5	230.5	19630	0	0	0	0	0
17	233	2	6	232.53	232.6	232.57	3699.167	0.0008	0	0	1	0
18	234	2	14	233.53	233.67	233.626	12856.43	0.00131	0	0	1	0
19	246	2	2	245.83	245.87	245.85	7678	0.0004	0	0	0	0
20	441	2	1	440.84	440.84	440.84	16689	0	0	0	0	0
21	456	2	2	456.31	456.33	456.32	2700	0.0001	0	0	1	0
22	600	2	1	599.69	599.69	599.69	1946	0	0	0	0	0
23	55	3	1	55.25	55.25	55.25	57152	0	0	0	0	0
24	57	3	1	57.21	57.21	57.21	6415	0	0	0	0	0
25	62	3	1	62.2	62.2	62.2	6272	0	0	0	0	0
26	76	3	13	75.67	75.84	75.715	23970.62	0.003025	0	1	0	0

run3

Ready NUM

Notes:

- If the results are not in the desired format, the ***Preferences*** selection can be modified and results re-exported.
- The Reset option under the File menu can be used to clear the results to allow for a new analysis.
- If Bins are created that contain only very small peaks, they can be filtered out using the Bin Y-Threshold setting in the Preference- It will be necessary to redo the analysis.