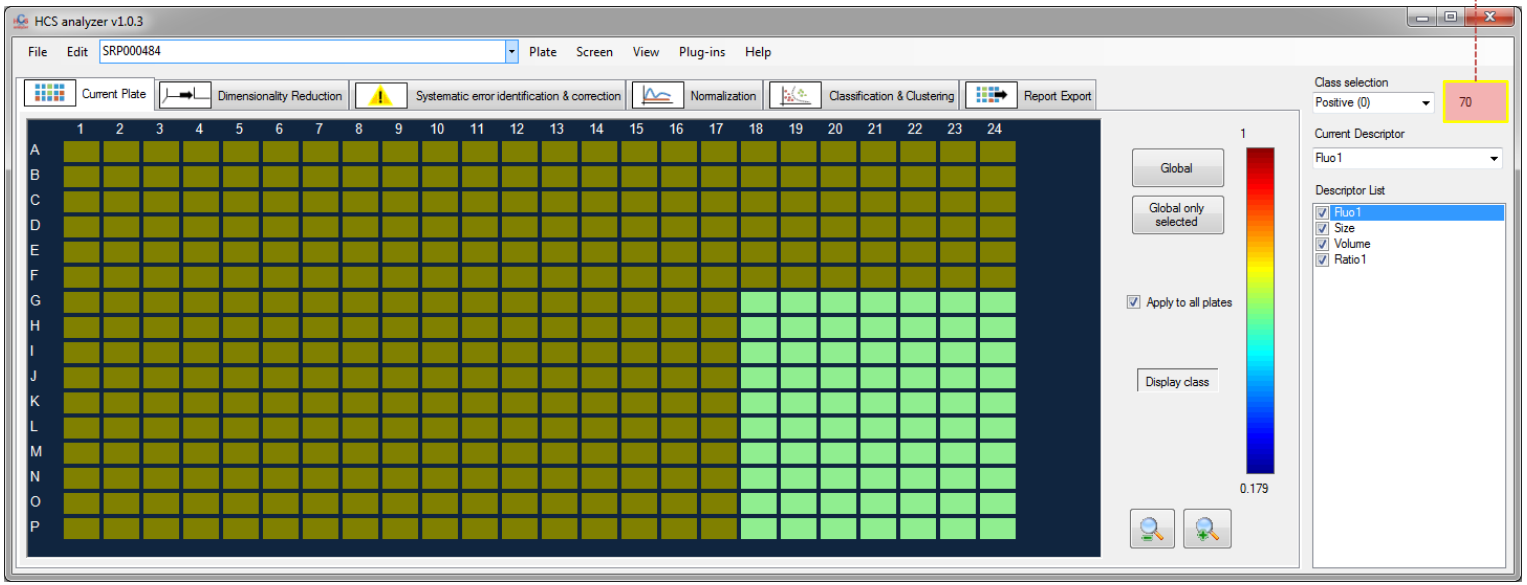
Visual Documentation
v1.0.3

User Interface

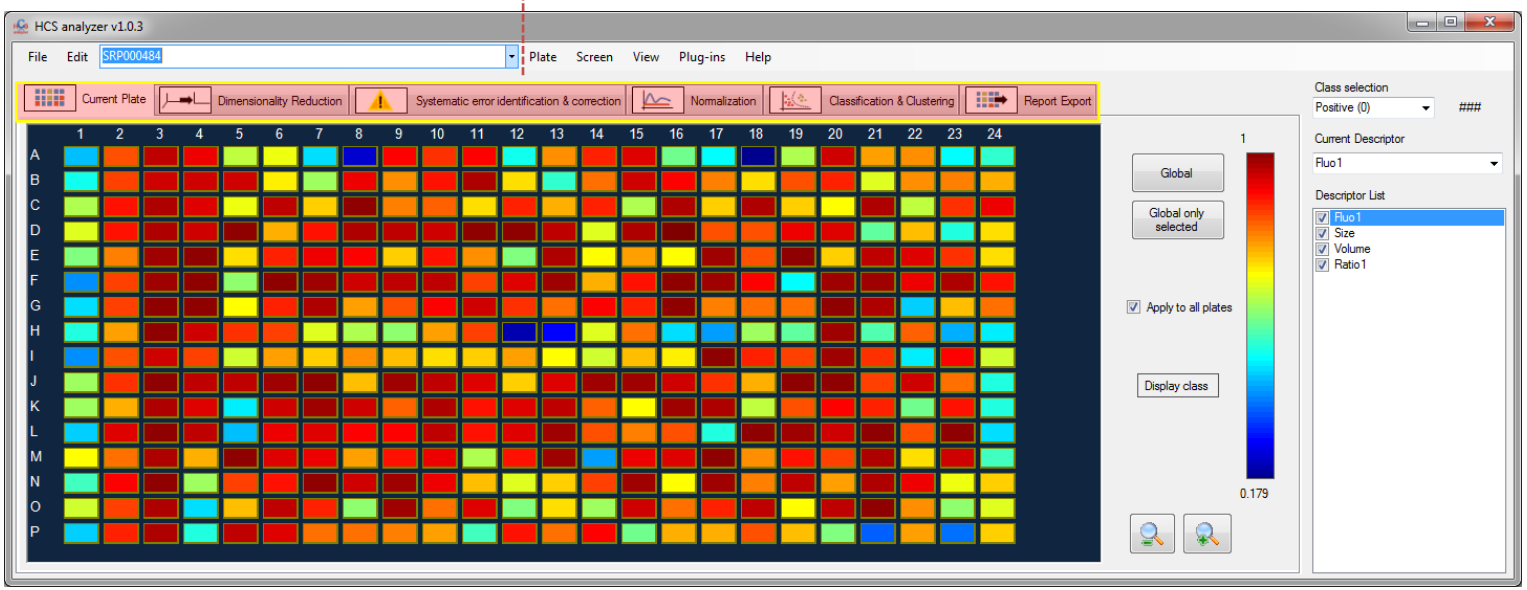
Active class
(for selection and
some processes)

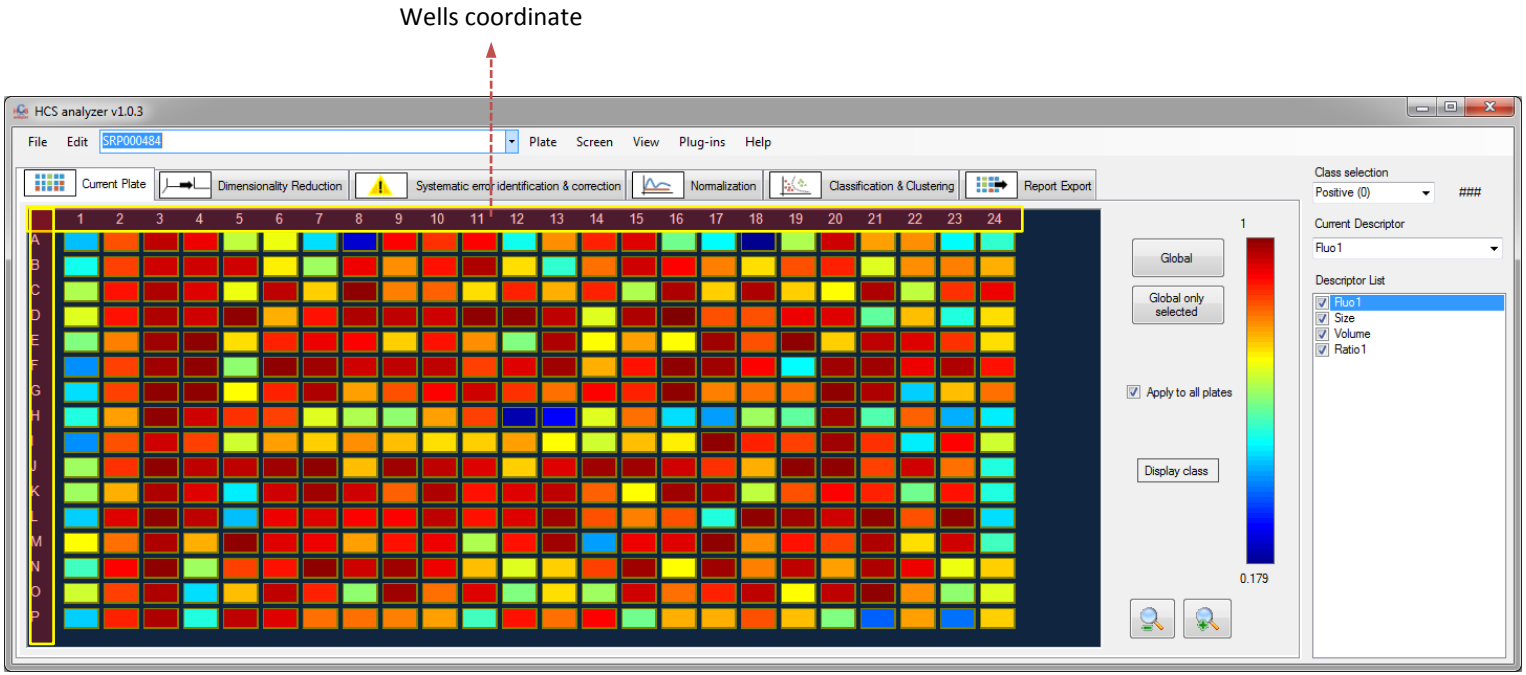
Number of wells associated
with the active class
(current plate only)

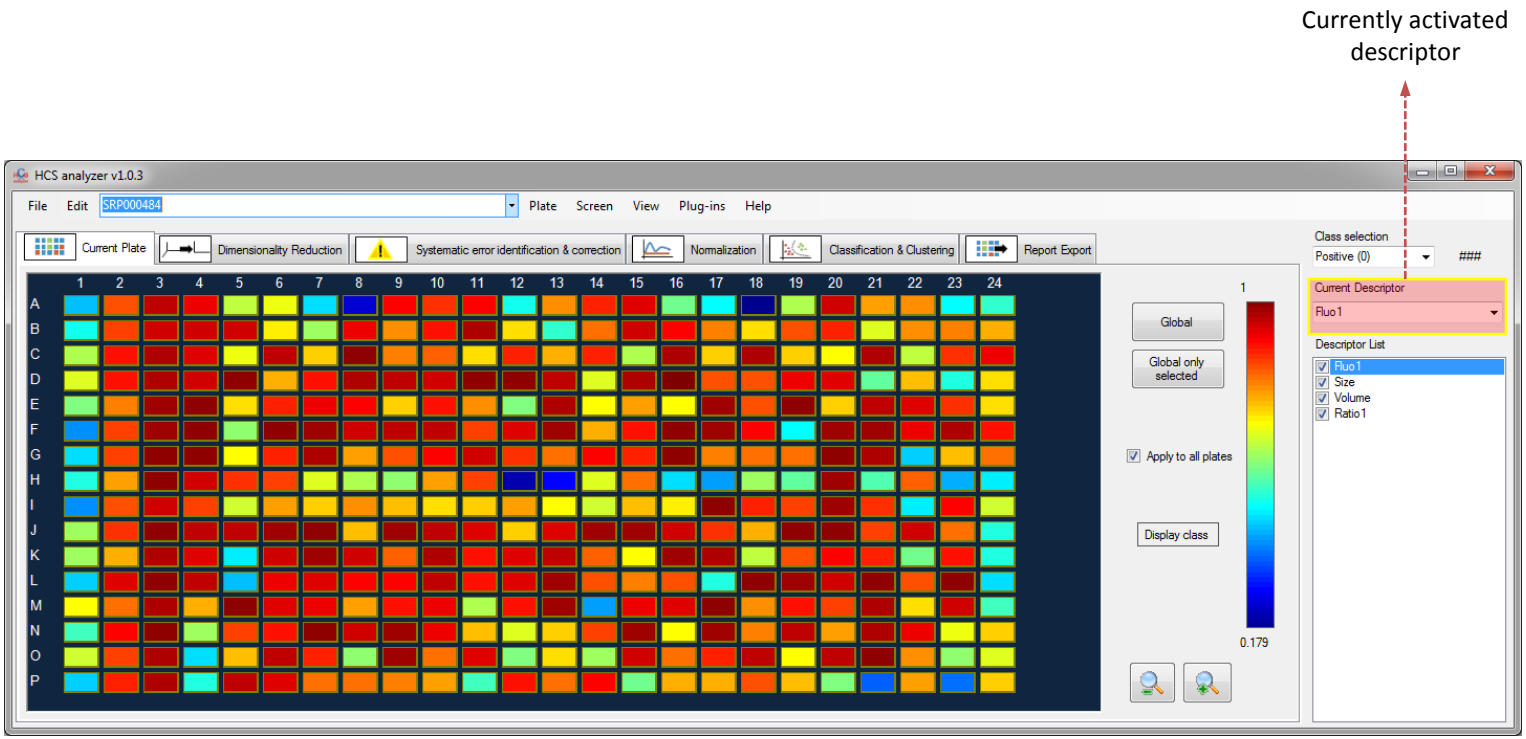


Current activated plate

Process pipeline




Wells coordinate
HCS analyzer v1.0.3
File
Edit
SRP000484
Plate
Screen
View
Plug-ins
Help
Current Plate
Dimensionality Reduction
Systematic error identification & correction
Normalization
Classification & Clustering
Report Export
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
A B C D E F G H I J K L M N O P
Global
Global only selected
Apply to all plates
Display class
1
0.179
Class selection
Positive (0)
###
Current Descriptor
Fluo1
Descriptor List
Fluo1
Size
Volume
Ratio1


Currently activated descriptor
HCS analyzer v1.0.3
File
Edit
SRP000484
Plate
Screen
View
Plug-ins
Help
Current Plate
Dimensionality Reduction
Systematic error identification & correction
Normalization
Classification & Clustering
Report Export
Class selection
Positive (0)
###
Current Descriptor
Fluo1
Descriptor List
Fluo1
Size
Volume
Ratio1
Global
Global only selected
Apply to all plates
Display class
1
0.179

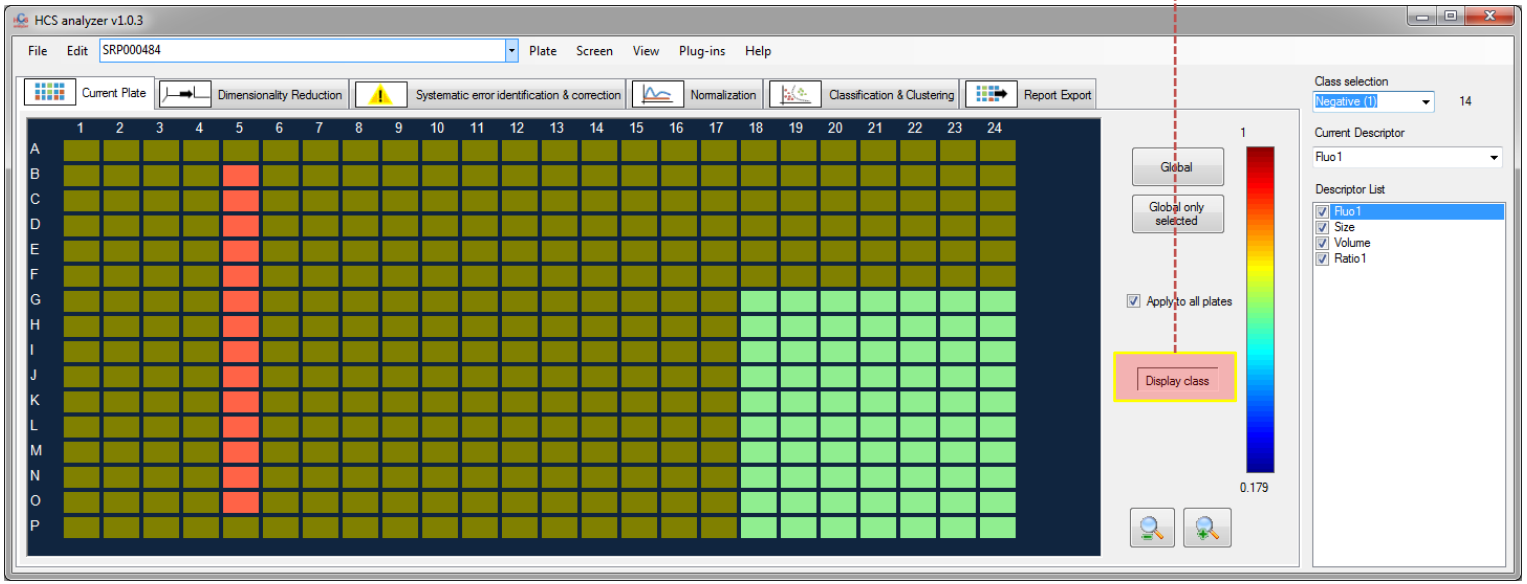
Current plate readouts display corresponding to the selected descriptor

Look up table related to the current plate and the current descriptor

Available and activated descriptors
When inactivated, the descriptors
will not be taken into account
for any process.

Zoom in and Zoom out
(can also be performed with the mouse wheel)

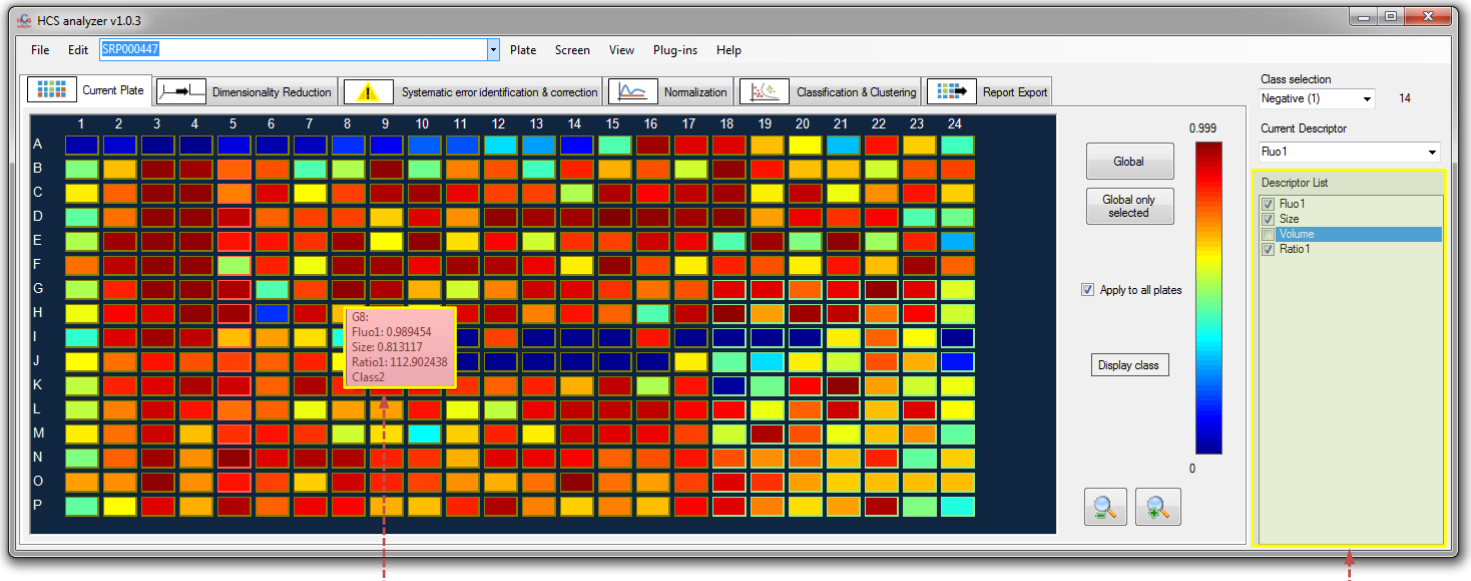
When activated
only class colors are
displayed



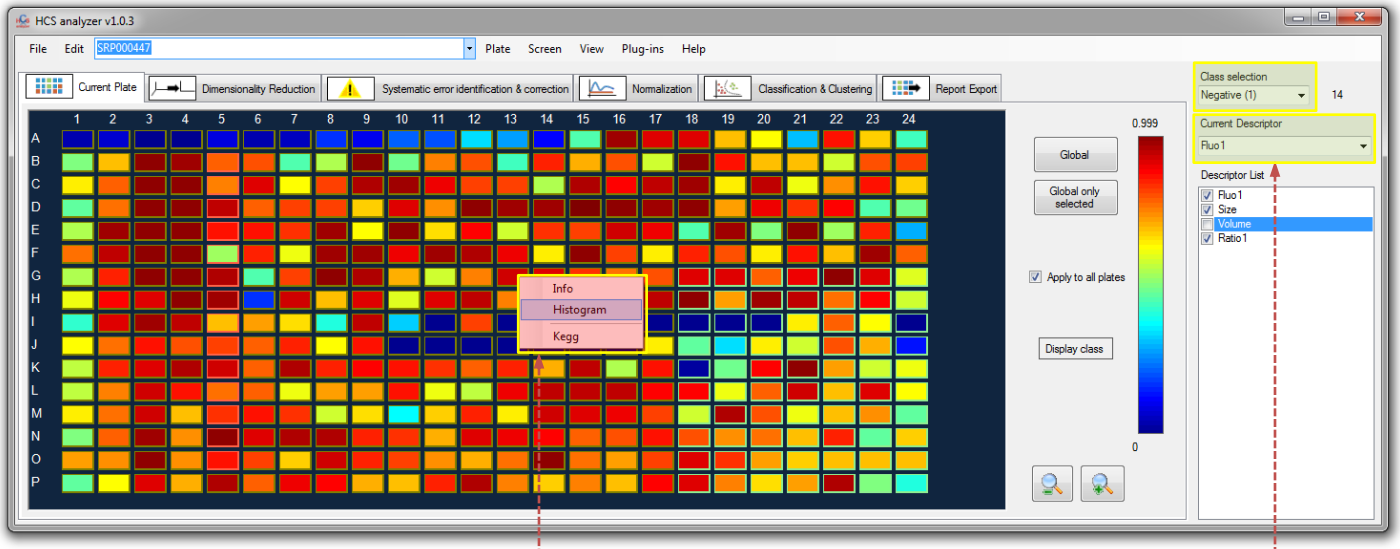
When checked
class selection is performed on all
the currently activated plates

When pressed, all the wells will turned into the currently selected class (including non activated wells)

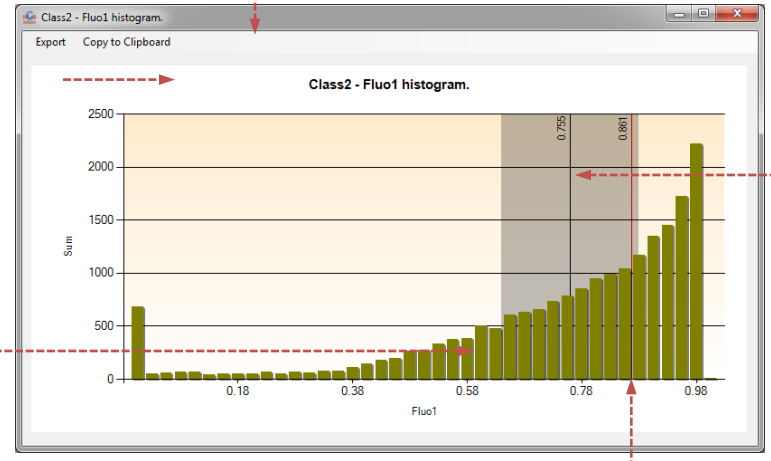
When pressed, the wells will turned into the currently selected class (only activated wells are concerned)



When the mouse cursor is placed over a well, a list of information is displayed. This includes: Well position, name (if so), list of all the activated descriptors with their corresponding values and the class



Contextual menu: **Histogram**
(right click on a well)

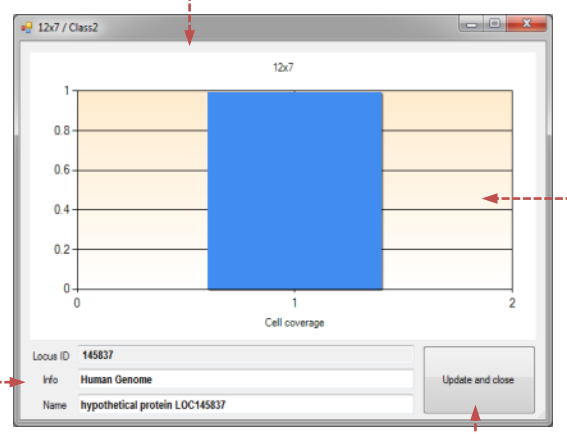


Average and standard deviation of the displayed histogram

Histogram of the selected histogram within the active class over the entire list of active plates.
(The histogram color is related to the class)

Current value of the selected well

Contextual menu: **Info** (right click over a well)

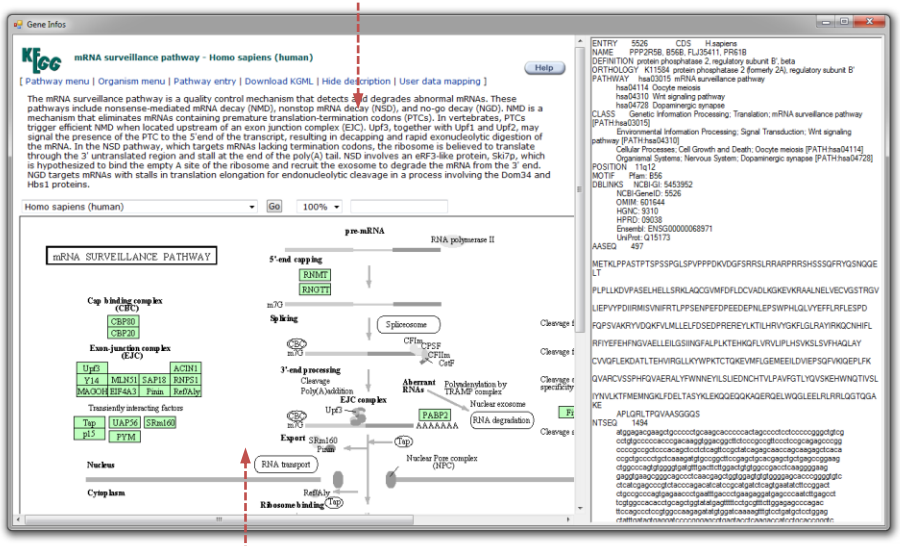


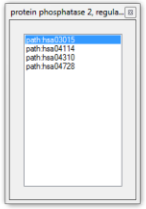
Representation of the distribution (if available) of the current well selected descriptor

Display (if loaded) locus ID, information and Name associated to the current well (Info and Name are editable)

Save new Info and Name

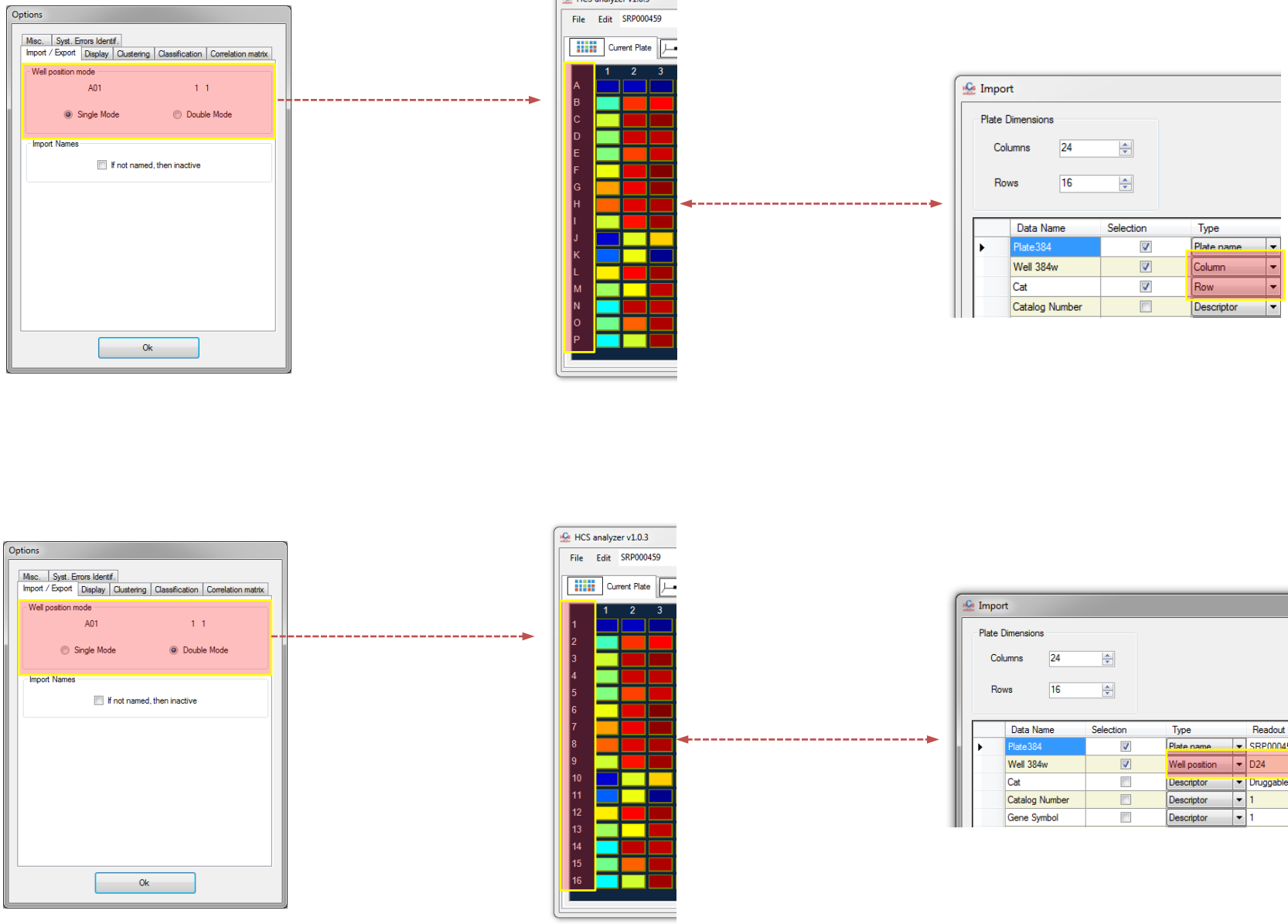
Contextual menu: **Kegg** (right click over a well)
Locus ID is required for this option

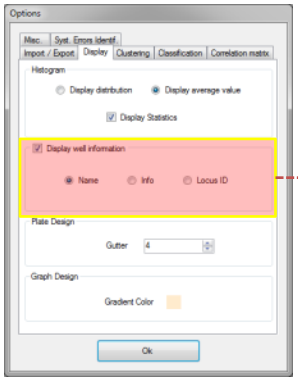




Current value of the selected well

Options


Options
Misc.
Syst. Errors Identif.
Import / Export
Display
Clustering
Classification
Correlation matrix
Well position mode
A01
1 1
Single Mode
Double Mode
Import Names
If not named, then inactive
Ok
HCS analyzer v1.0.3
File
Edit
SRP000459
Current Plate
1 2 3
A B C D E F G H I J K L M N O P
Import
Plate Dimensions
Columns
24
Rows
16
Data Name
Selection
Type
Plate384
Plate name
Well 384w
Column
Cat
Row
Catalog Number
Descriptor
Options
Misc.
Syst. Errors Identif.
Import / Export
Display
Clustering
Classification
Correlation matrix
Well position mode
A01
1 1
Single Mode
Double Mode
Import Names
If not named, then inactive
Ok
HCS analyzer v1.0.3
File
Edit
SRP000459
Current Plate
1 2 3
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Import
Plate Dimensions
Columns
24
Rows
16
Data Name
Selection
Type
Readout 0
Plate384
Plate name
SRP000459
Well 384w
Well position
D24
Cat
Descriptor
Druggable
Catalog Number
Descriptor
1
Gene Symbol
Descriptor
1


Options
Misc.
Syst. Errors identif.
Import / Export
Display
Clustering
Classification
Correlation matrix
Histogram
Display distribution
Display average value
Display Statistics
Display well information
Name
Info
Locus ID
Plate Design
Gutter
4
Graph Design
Gradient Color
Ok

HCS analyzer v1.0.3
File
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Current Plate
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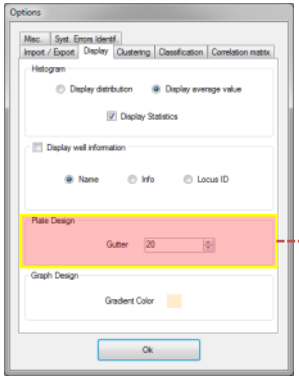
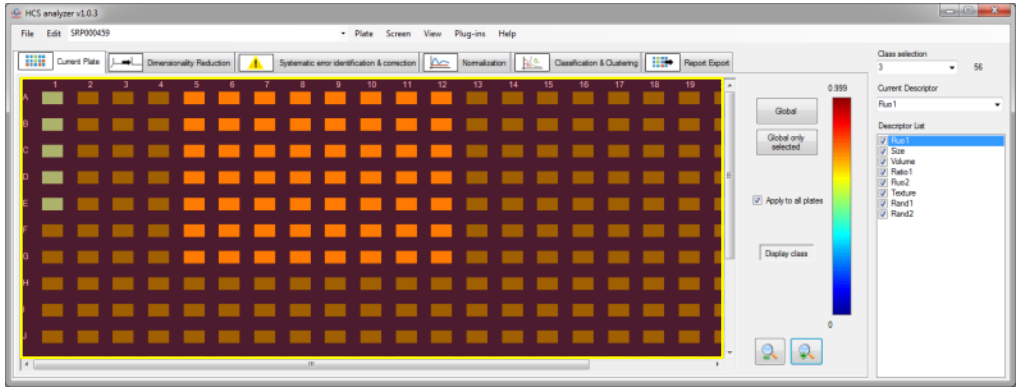
Normalization
Classification & Clustering
Report Export
Class selection
Current Descriptor
Fluo1
Descriptor List
Size
Volume
Ratio1
Fluo2
Texture
Rand1
Rand2
Global
Global only selected
Apply to all plates
Display class
0.999
0


Options
Misc.
Syst. Errors identif.
Import / Export
Display
Clustering
Classification
Correlation matrix
Histogram
Display distribution
Display average value
Display Statistics
Display well information
Name
Info
Locus ID
Plate Design
Gutter
20
Graph Design
Gradient Color
Ok


HCS analyzer v1.0.3
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SRP000459
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Class selection
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Fluo1
Descriptor List
Size
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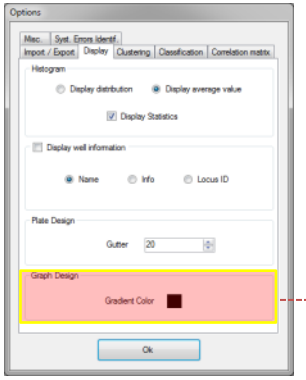
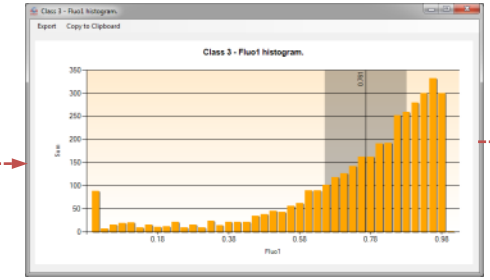
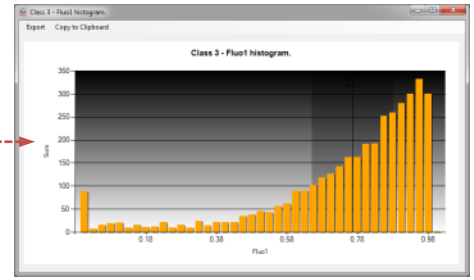
Fluo2
Texture
Rand1
Rand2
Global
Global only selected
Apply to all plates
Display class
0.999
0


Options
Misc.
Syst. Errors identif.
Import / Export
Display
Clustering
Classification
Correlation matrix
Histogram
Display distribution
Display average value
Display Statistics
Display well information
Name
Info
Locus ID
Plate Design
Gutter
20
Graph Design
Gradient Color
Ok


Class 3 - Fluo1 histogram.
Export
Copy to Clipboard
Class 3 - Fluo1 histogram.
Sum
Fluo1
0.10
0.30
0.50
0.70
0.90


Class 3 - Fluo1 histogram.
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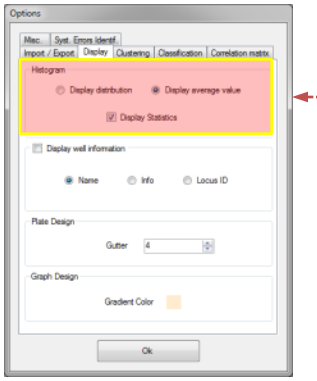
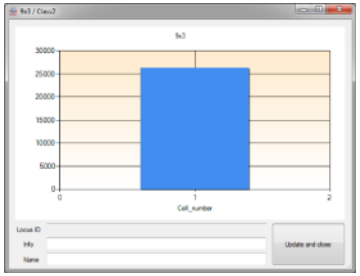
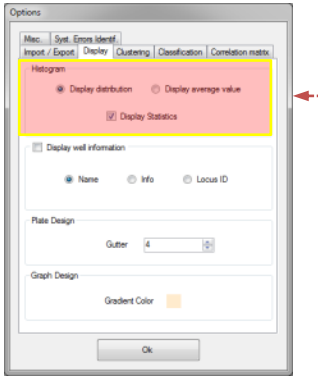
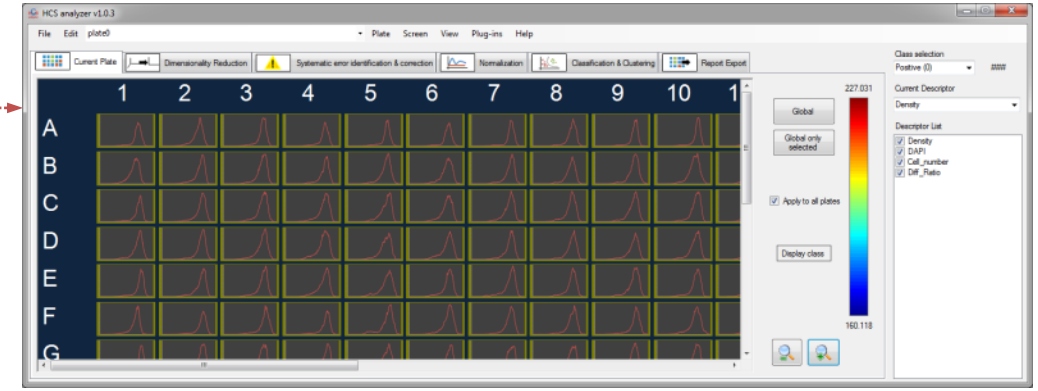
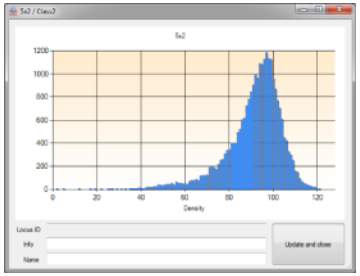
Copy to Clipboard
Class 3 - Fluo1 histogram.
Sum
Fluo1
0.10
0.30
0.50
0.70
0.90



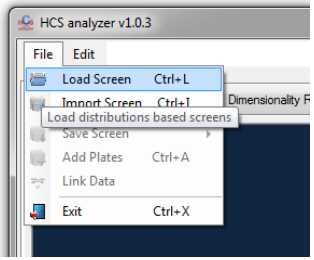


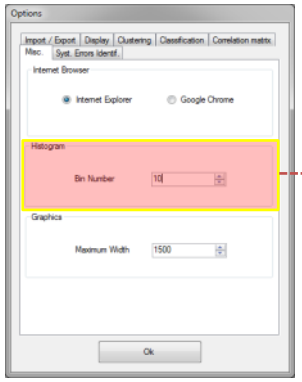


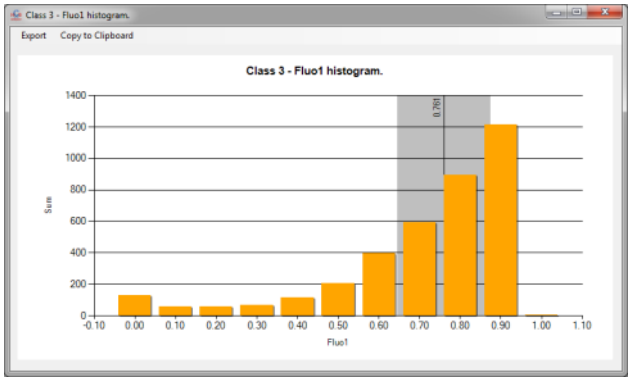


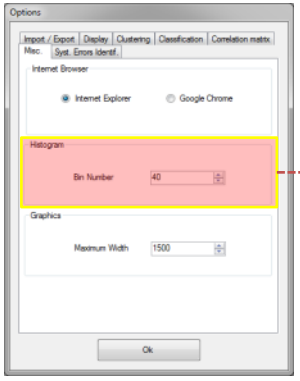


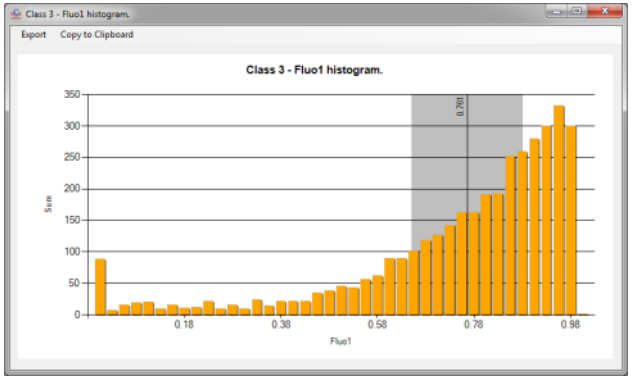
Note: *display distribution* option requires the have loaded a distributions based screen

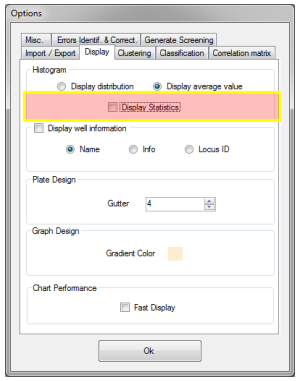


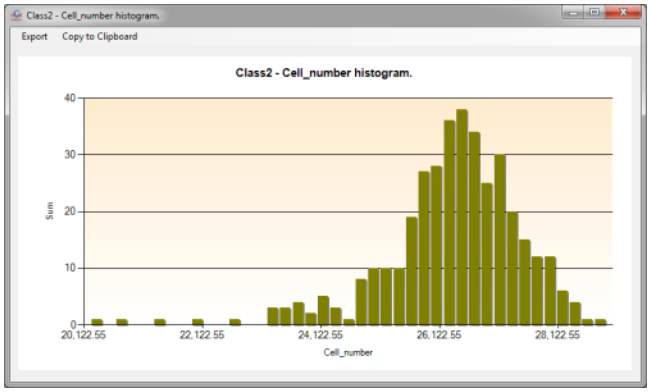

Options
Import / Export
Display
Clustering
Classification
Correlation matrix
Misc.
Syst. Errors identif.
Internet Browser
Internet Explorer
Google Chrome
Histogram
Bin Number
10
Graphics
Maximum Width
1500
Ok

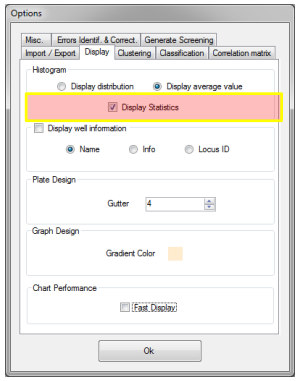

Class 3 - Fluo1 histogram.
Export
Copy to Clipboard
Class 3 - Fluo1 histogram.
Sum
Fluo1
0.781

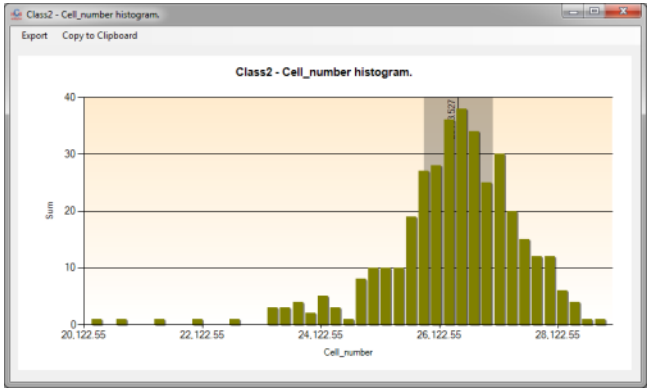

Options
Import / Export
Display
Clustering
Classification
Correlation matrix
Misc.
Syst. Errors identif.
Internet Browser
Internet Explorer
Google Chrome
Histogram
Bin Number
40
Graphics
Maximum Width
1500
Ok

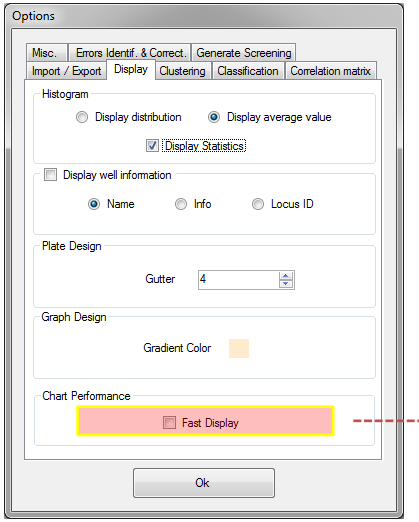

Class 3 - Fluo1 histogram.
Export
Copy to Clipboard
Class 3 - Fluo1 histogram.
Sum
Fluo1
0.781

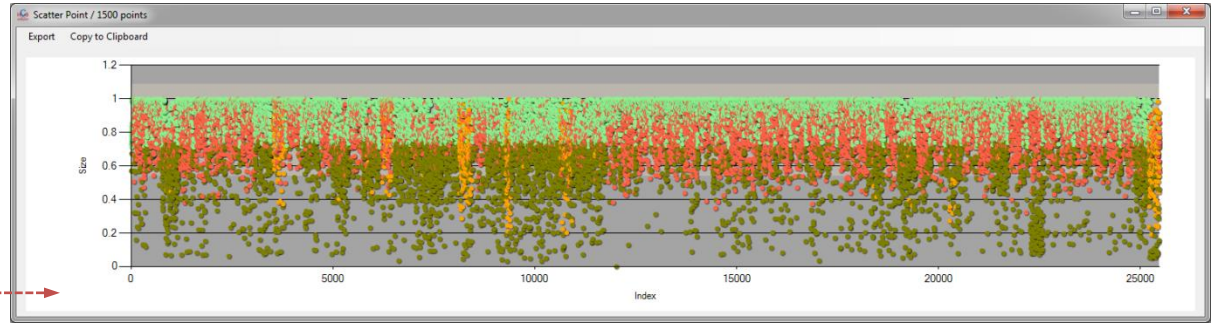

Options
Misc.
Errors Identif. & Correct.
Generate Screening
Import / Export
Display
Clustering
Classification
Correlation matrix
Histogram
Display distribution
Display average value
Display Statistics
Display well information
Name
Info
Locus ID
Plate Design
Gutter
4
Graph Design
Gradient Color
Chart Performance
Fast Display
Ok

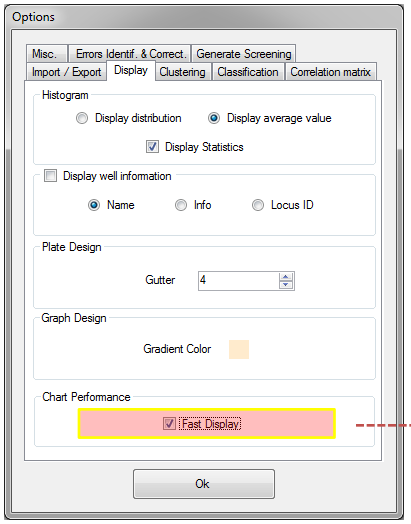

Class2 - Cell_number histogram.
Export
Copy to Clipboard
Class2 - Cell_number histogram.
Sum
40
30
20
10
0
20,122.55
22,122.55
24,122.55
26,122.55
28,122.55
Cell_number

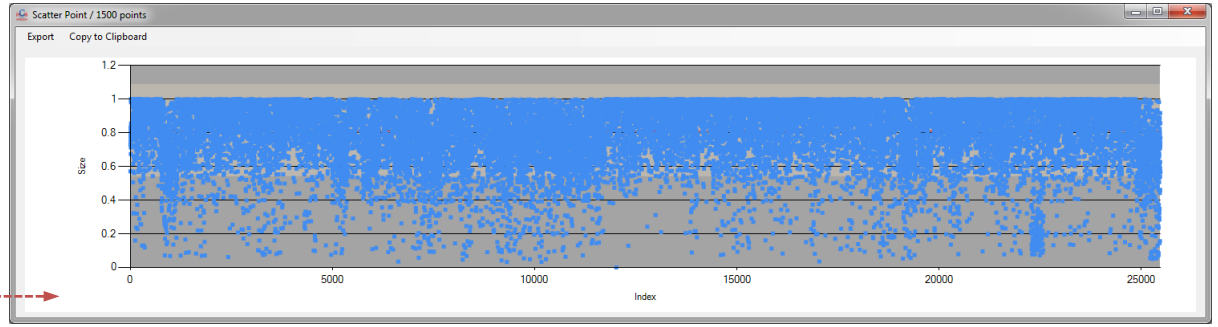

Options
Misc.
Errors Identif. & Correct.
Generate Screening
Import / Export
Display
Clustering
Classification
Correlation matrix
Histogram
Display distribution
Display average value
Display Statistics
Display well information
Name
Info
Locus ID
Plate Design
Gutter
4
Graph Design
Gradient Color
Chart Performance
Fast Display
Ok


Class2 - Cell_number histogram.
Export
Copy to Clipboard
Class2 - Cell_number histogram.
1,527
Sum
40
30
20
10
0
20,122.55
22,122.55
24,122.55
26,122.55
28,122.55
Cell_number


Options
Misc.
Errors Identif. & Correct.
Generate Screening
Import / Export
Display
Clustering
Classification
Correlation matrix
Histogram
Display distribution
Display average value
Display Statistics
Display well information
Name
Info
Locus ID
Plate Design
Gutter
4
Graph Design
Gradient Color
Chart Performance
Fast Display
Ok


Scatter Point / 1500 points
Export
Copy to Clipboard
Size
Index
0
0.2
0.4
0.6
0.8
1
1.2
5000
10000
15000
20000
25000


Options
Misc.
Errors Identif. & Correct.
Generate Screening
Import / Export
Display
Clustering
Classification
Correlation matrix
Histogram
Display distribution
Display average value
Display Statistics
Display well information
Name
Info
Locus ID
Plate Design
Gutter
4
Graph Design
Gradient Color
Chart Performance
Fast Display
Ok


Scatter Point / 1500 points
Export
Copy to Clipboard
Size
Index
0
0.2
0.4
0.6
0.8
1
1.2
5000
10000
15000
20000
25000

Importing Data

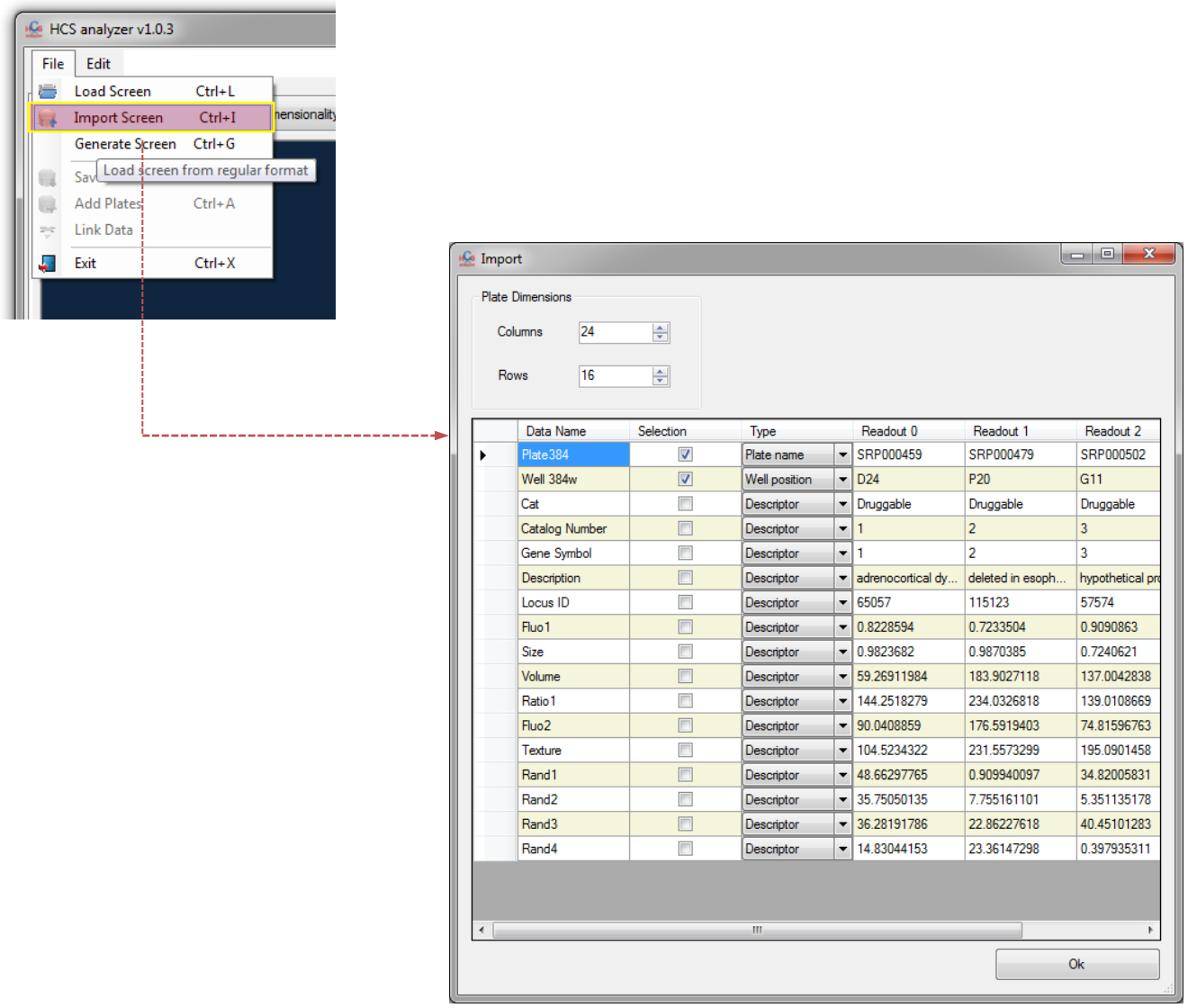
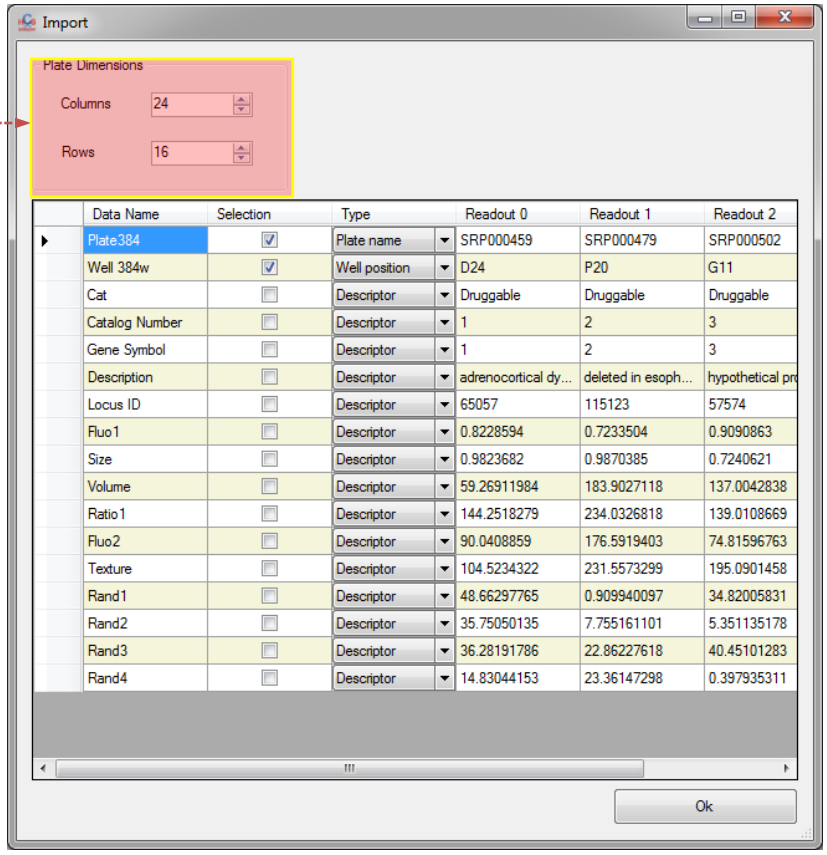
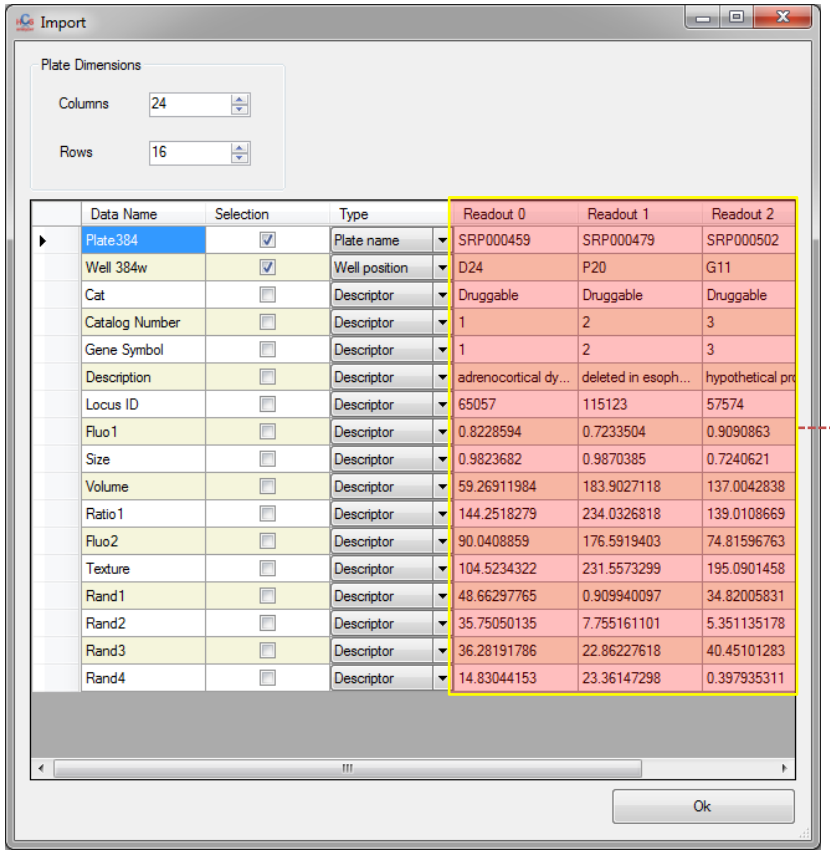

HCS analyzer v1.0.3
File
Edit
Load Screen Ctrl+L
Import Screen Ctrl+I
Generate Screen Ctrl+G
Load screen from regular format
Add Plates Ctrl+A
Link Data
Exit Ctrl+X
Import
Plate Dimensions
Columns 24
Rows 16
Data Name | Selection | Type | Readout 0 | Readout 1 | Readout 2
Plate384 | Plate name | SRP000459 | SRP000479 | SRP000502
Well 384w | Well position | D24 | P20 | G11
Cat | Descriptor | Druggable | Druggable | Druggable
Catalog Number | Descriptor | 1 | 2 | 3
Gene Symbol | Descriptor | 1 | 2 | 3
Description | Descriptor | adrenocortical dy... | deleted in esoph... | hypothetical pr
Locus ID | Descriptor | 65057 | 115123 | 57574
Fluo1 | Descriptor | 0.8228594 | 0.7233504 | 0.9090863
Size | Descriptor | 0.9823682 | 0.9870385 | 0.7240621
Volume | Descriptor | 59.26911984 | 183.9027118 | 137.0042838
Ratio1 | Descriptor | 144.2518279 | 234.0326818 | 139.0108669
Fluo2 | Descriptor | 90.0408859 | 176.5919403 | 74.81596763
Texture | Descriptor | 104.5234322 | 231.5573299 | 195.0901458
Rand1 | Descriptor | 48.66297765 | 0.909940097 | 34.82005831
Rand2 | Descriptor | 35.75050135 | 7.755161101 | 5.351135178
Rand3 | Descriptor | 36.28191786 | 22.86227618 | 40.45101283
Rand4 | Descriptor | 14.83044153 | 23.36147298 | 0.397935311
Ok

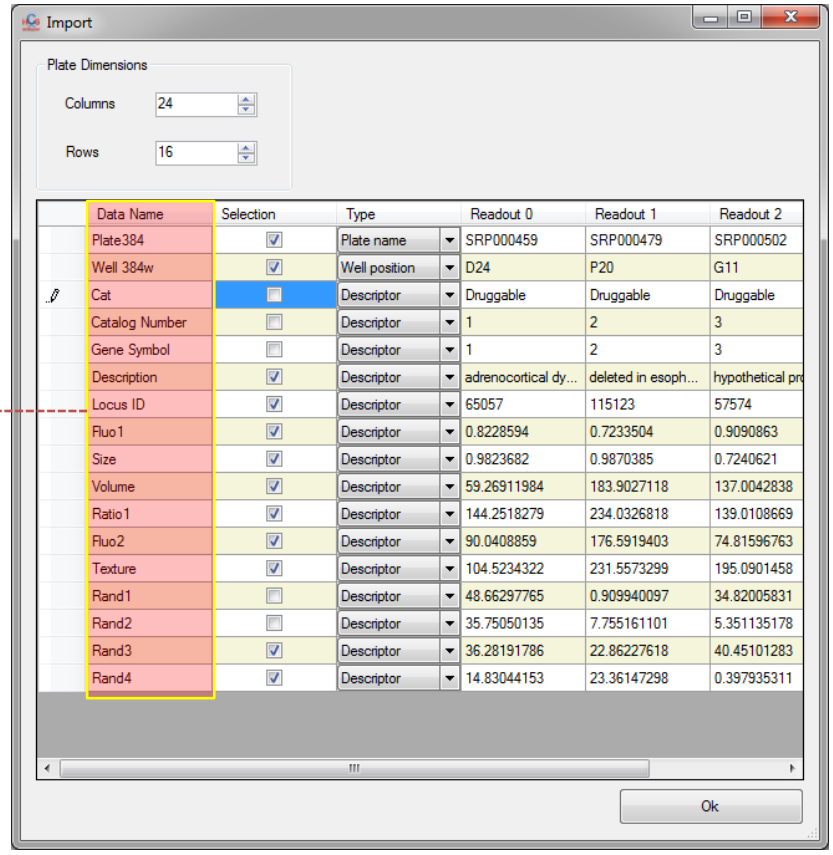
Plate dimensions



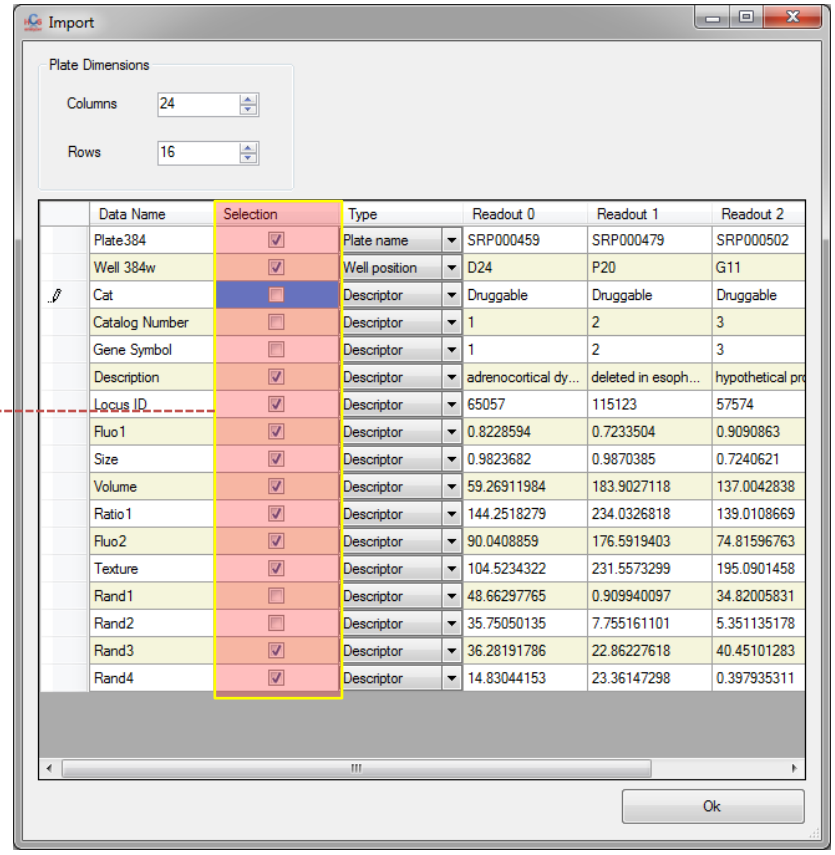


Readouts preview

Names that be associated with the data

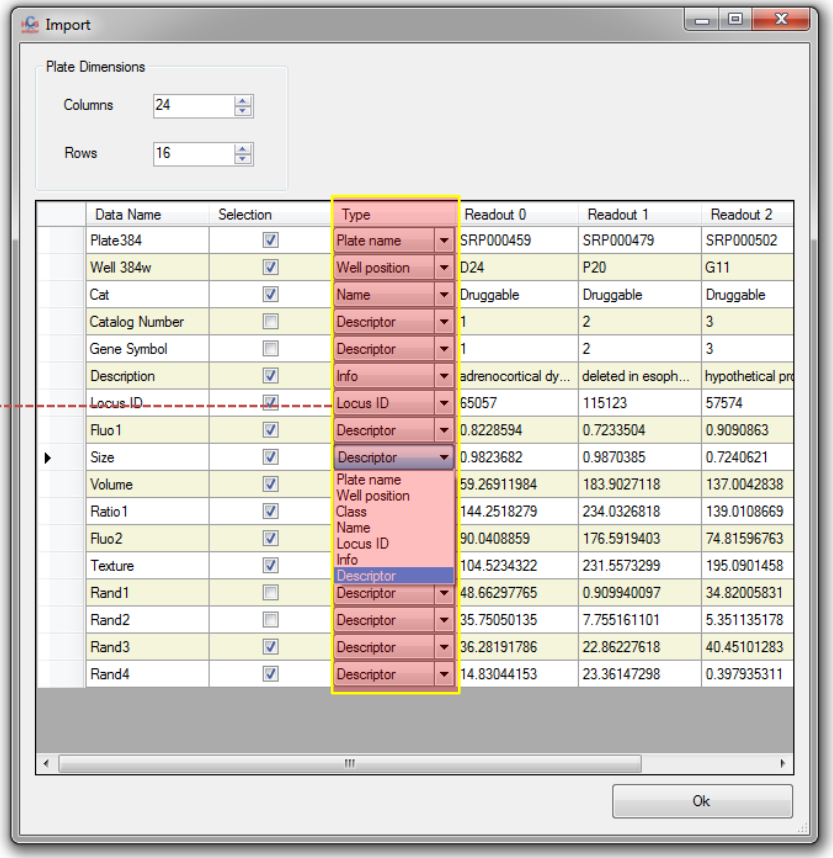


If unchecked,
the corresponding data
will not be loaded

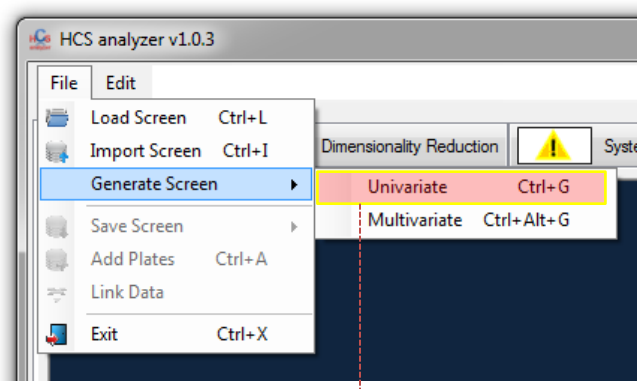


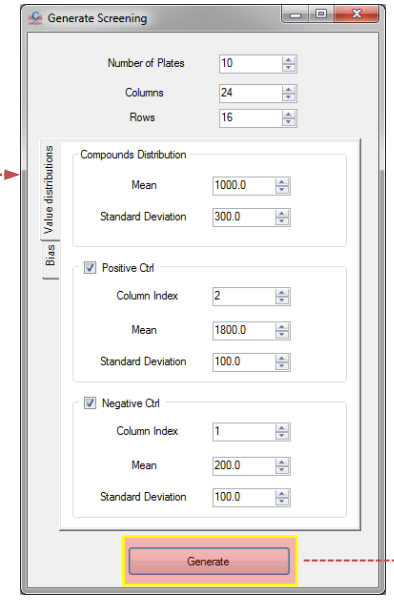
	Data Name	Selection	Type	Readout 0	Readout 1	Readout 2
	Plate384	☑	Plate name	SRP000459	SRP000479	SRP000502
	Well 384w	☑	Well position	D24	P20	G11
✎	Cat	☐	Descriptor	Druggable	Druggable	Druggable
	Catalog Number	☐	Descriptor	1	2	3
	Gene Symbol	☐	Descriptor	1	2	3
	Description	☑	Descriptor	adrenocortical dy...	deleted in esoph...	hypothetical pr
	Locus ID	☑	Descriptor	65057	115123	57574
	Fluo1	☑	Descriptor	0.8228594	0.7233504	0.9090863
	Size	☑	Descriptor	0.9823682	0.9870385	0.7240621
	Volume	☑	Descriptor	59.26911984	183.9027118	137.0042838
	Ratio1	☑	Descriptor	144.2518279	234.0326818	139.0108669
	Fluo2	☑	Descriptor	90.0408859	176.5919403	74.81596763
	Texture	☑	Descriptor	104.5234322	231.5573299	195.0901458
	Rand1	☐	Descriptor	48.66297765	0.909940097	34.82005831
	Rand2	☐	Descriptor	35.75050135	7.755161101	5.351135178
	Rand3	☑	Descriptor	36.28191786	22.86227618	40.45101283
	Rand4	☑	Descriptor	14.83044153	23.36147298	0.397935311

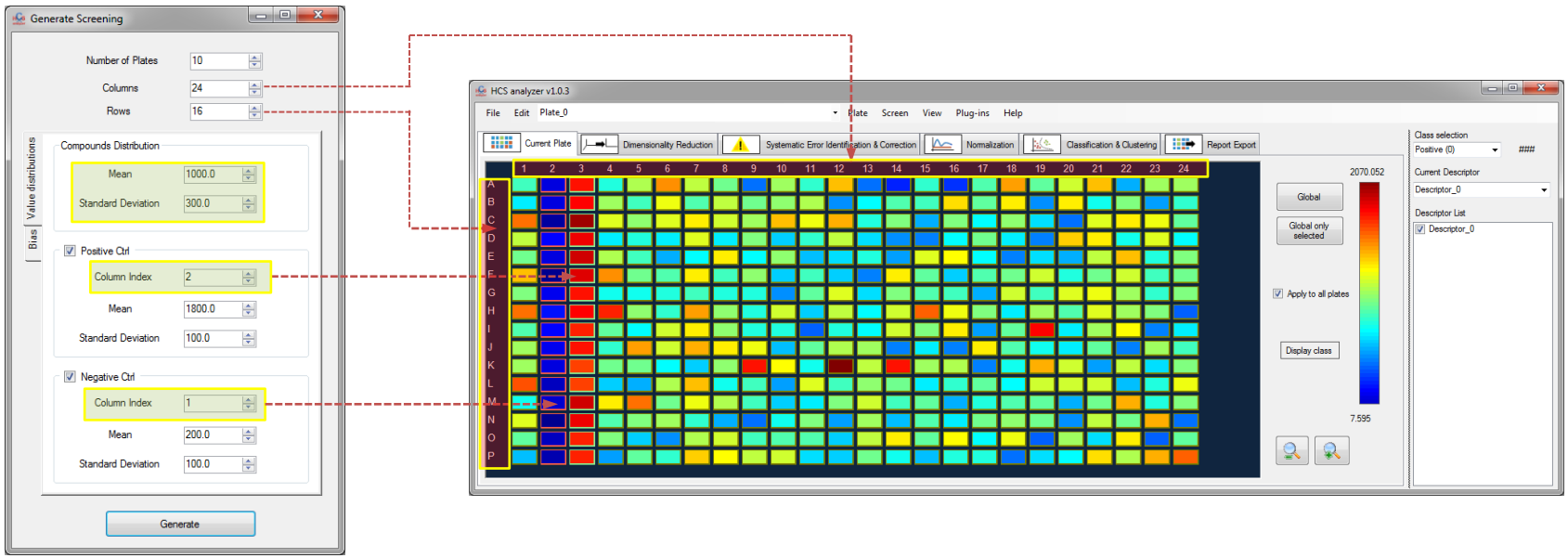
Data type.
Mandatory: Plate Name, well position and at least one descriptor.
Note: Locus ID should be defined as an integer.

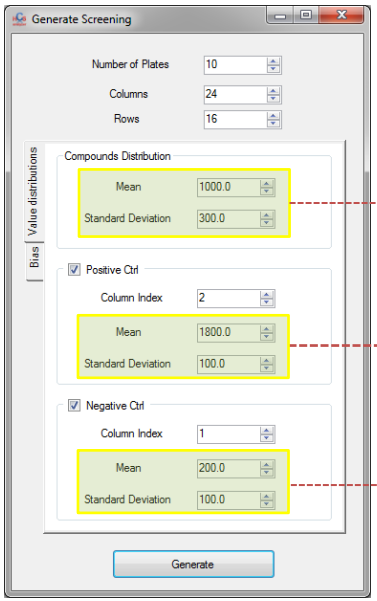


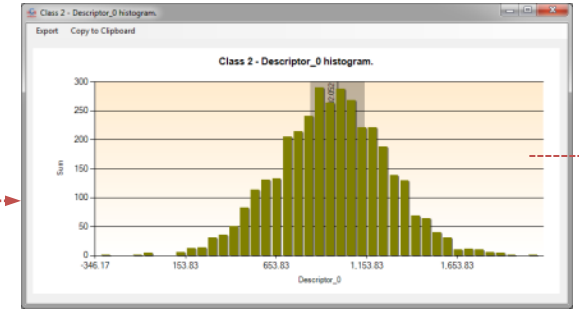
Generating artificial univariate screening data

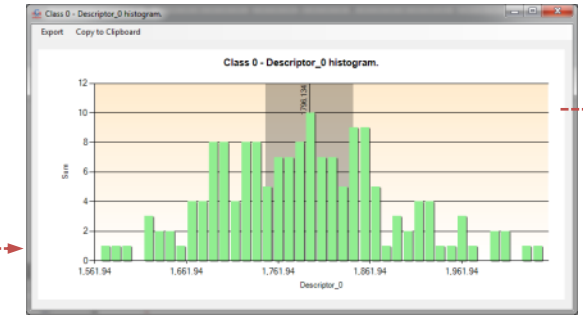

HCS analyzer v1.0.3
File
Edit
Load Screen Ctrl+L
Import Screen Ctrl+I
Generate Screen
Save Screen
Add Plates Ctrl+A
Link Data
Exit Ctrl+X
Dimensionality Reduction
Univariate Ctrl+G
Multivariate Ctrl+Alt+G

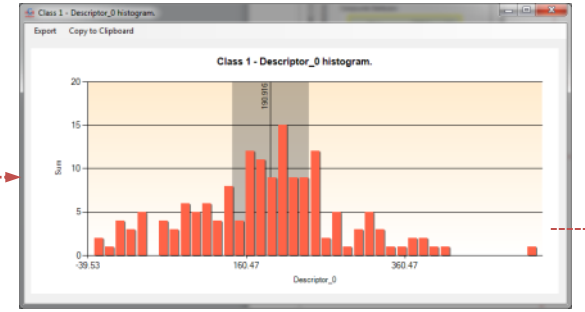

Generate Screening
Number of Plates 10
Columns 24
Rows 16
Value distributions
Bias
Compounds Distribution
Mean 1000.0
Standard Deviation 300.0
Positive Ctrl
Column Index 2
Mean 1800.0
Standard Deviation 100.0
Negative Ctrl
Column Index 1
Mean 200.0
Standard Deviation 100.0
Generate

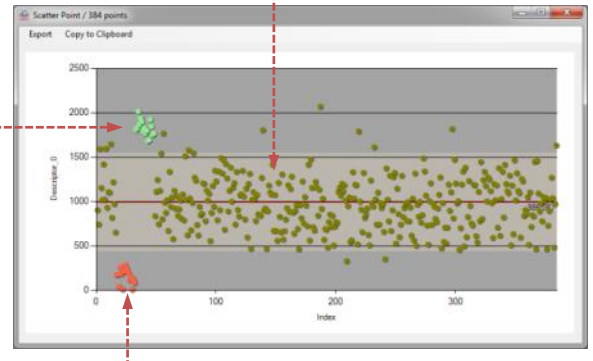

Generate Screening
Number of Plates
10
Columns
24
Rows
16
Value distributions
Bias
Compounds Distribution
Mean
1000.0
Standard Deviation
300.0
Positive Ctrl
Column Index
2
Mean
1800.0
Standard Deviation
100.0
Negative Ctrl
Column Index
1
Mean
200.0
Standard Deviation
100.0
Generate
HCS analyzer v1.0.3
File
Edit
Plate_0
Plate
Screen
View
Plug-ins
Help
Current Plate
Dimensionality Reduction
Systematic Error Identification & Correction
Normalization
Classification & Clustering
Report Export
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
A B C D E F G H I J K L M N O P
2070.052
7.595
Global
Global only selected
Apply to all plates
Display class
Class selection
Positive (0)
###
Current Descriptor
Descriptor_0
Descriptor List
Descriptor_0

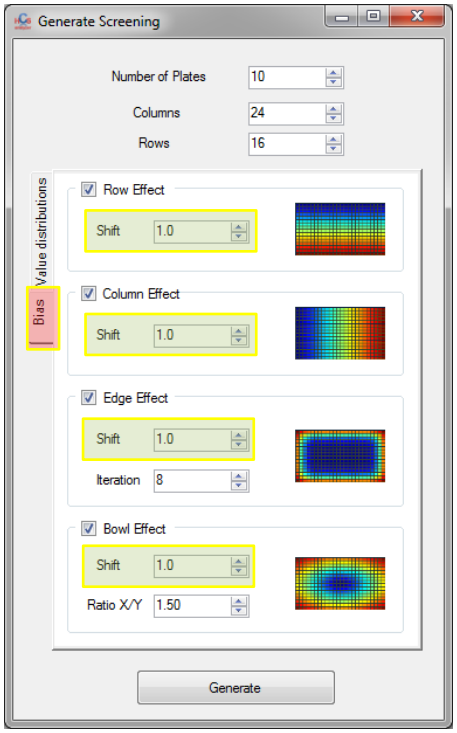

Generate Screening
Number of Plates
10
Columns
24
Rows
16
Value distributions
Bias
Compounds Distribution
Mean
1000.0
Standard Deviation
300.0
Positive Ctrl
Column Index
2
Mean
1800.0
Standard Deviation
100.0
Negative Ctrl
Column Index
1
Mean
200.0
Standard Deviation
100.0
Generate


Class 2 - Descriptor_0 histogram.
Export
Copy to Clipboard
Class 2 - Descriptor_0 histogram.
Sum
Descriptor_0


Class 0 - Descriptor_0 histogram.
Export
Copy to Clipboard
Class 0 - Descriptor_0 histogram.
Sum
Descriptor_0

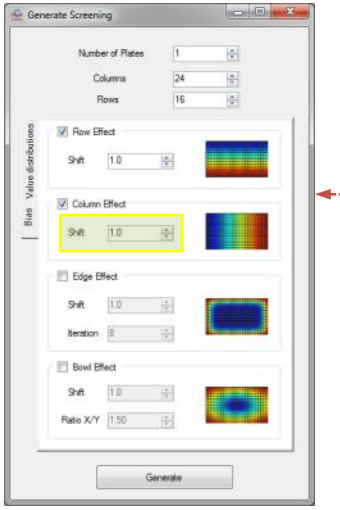

Class 1 - Descriptor_0 histogram.
Export
Copy to Clipboard
Class 1 - Descriptor_0 histogram.
Sum
Descriptor_0

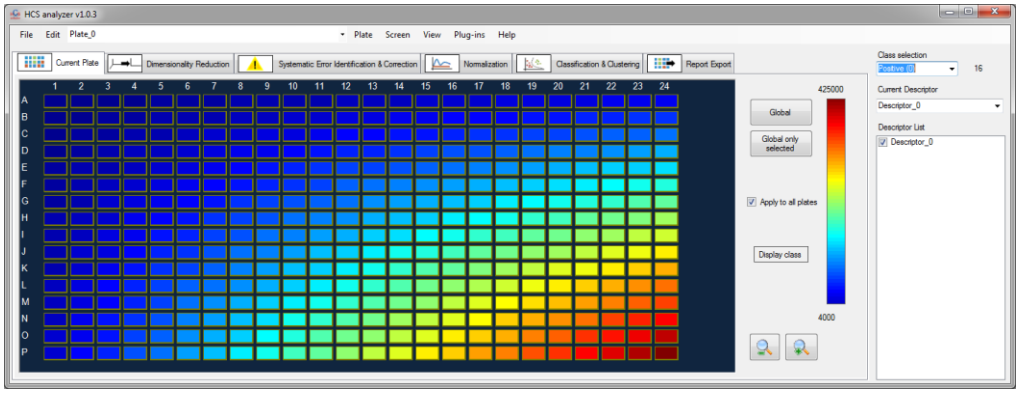

Scatter Point / 384 points
Export
Copy to Clipboard
Descriptor_0
Index

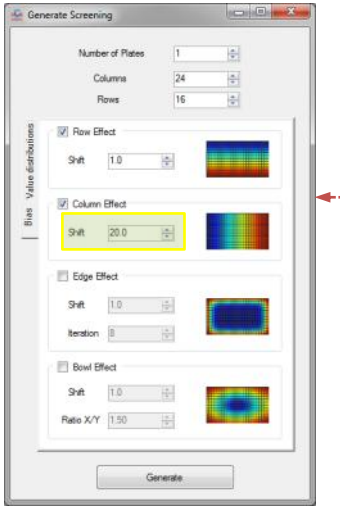


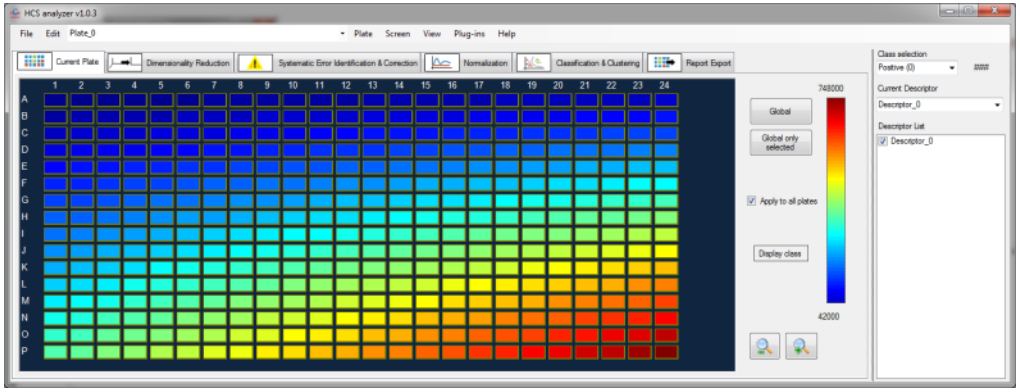
If an effect **X** is selected, it will be combined to original data by the following way:

Resulting Data = Original Data * (**X** + **Shift_X**)

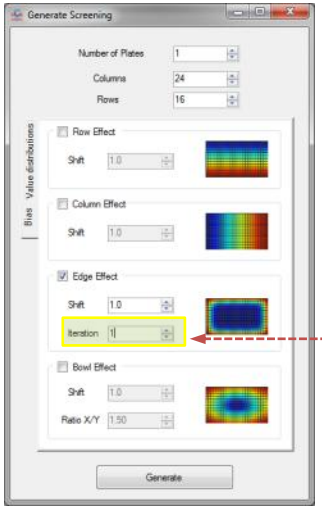


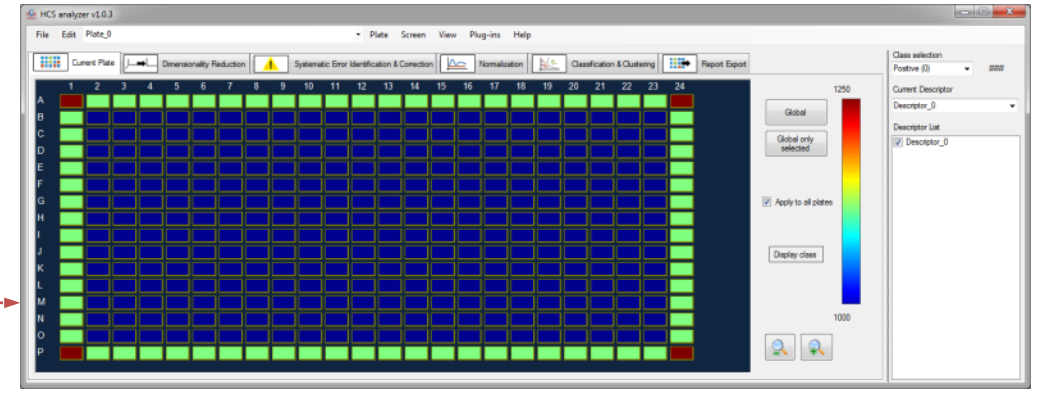


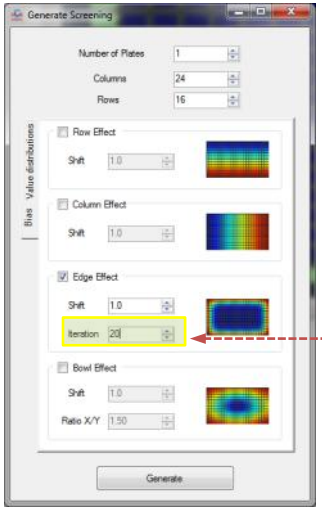


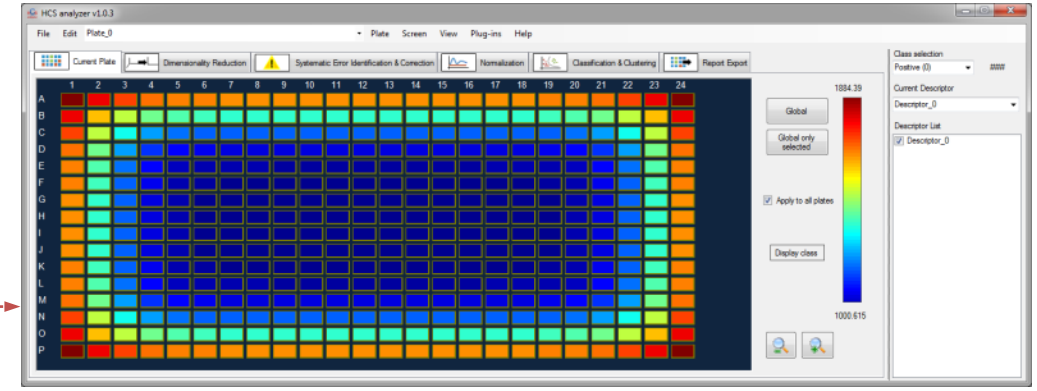


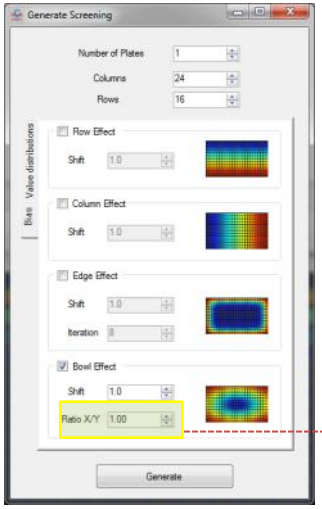
The higher **Shift_X** is, the lower **X** contribution to the generated data

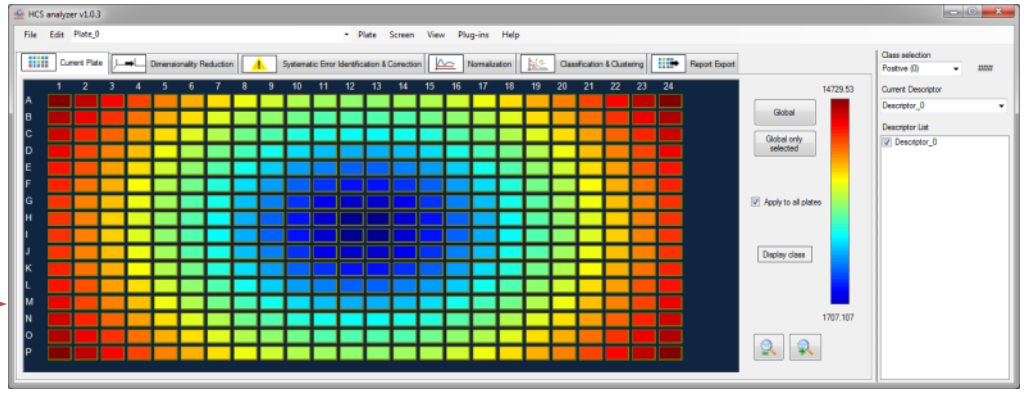

Generate Screening
Number of Plates
Columns
Rows
Value distributions
Bias
Row Effect
Shift
Column Effect
Shift
Edge Effect
Shift
Iteration
Bowl Effect
Shift
Ratio X/Y
Generate

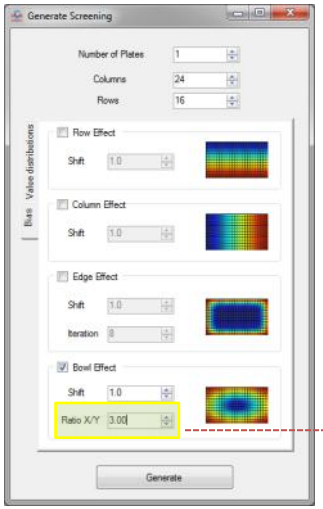

HCS analyzer v1.0.3
File
Edit
Plate_0
Plate
Screen
View
Plug-ins
Help
Current Plate
Dimensionality Reduction
Systematic Error Identification & Correction
Normalization
Classification & Clustering
Report Export
Global
Global only selected
Apply to all plates
Display class
Class selection
Positive (0)
Current Descriptor
Descriptor_0
Descriptor List
Descriptor_0

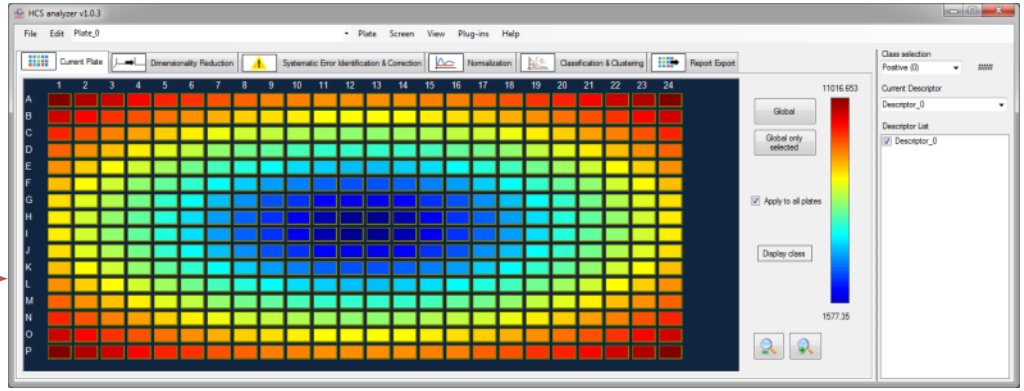

Generate Screening
Number of Plates
Columns
Rows
Value distributions
Bias
Row Effect
Shift
Column Effect
Shift
Edge Effect
Shift
Iteration
Bowl Effect
Shift
Ratio X/Y
Generate


HCS analyzer v1.0.3
File
Edit
Plate_0
Plate
Screen
View
Plug-ins
Help
Current Plate
Dimensionality Reduction
Systematic Error Identification & Correction
Normalization
Classification & Clustering
Report Export
Global
Global only selected
Apply to all plates
Display class
Class selection
Positive (0)
Current Descriptor
Descriptor_0
Descriptor List
Descriptor_0

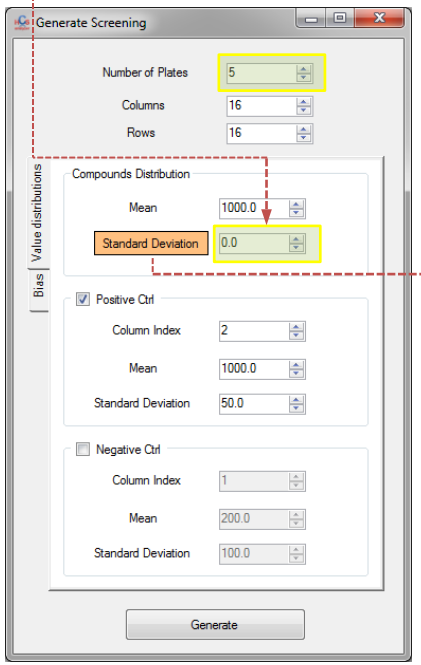

Generate Screening
Number of Plates
Columns
Rows
Bias
Value distributions
Row Effect
Shift
Column Effect
Edge Effect
Iteration
Bowl Effect
Ratio X/Y
Generate

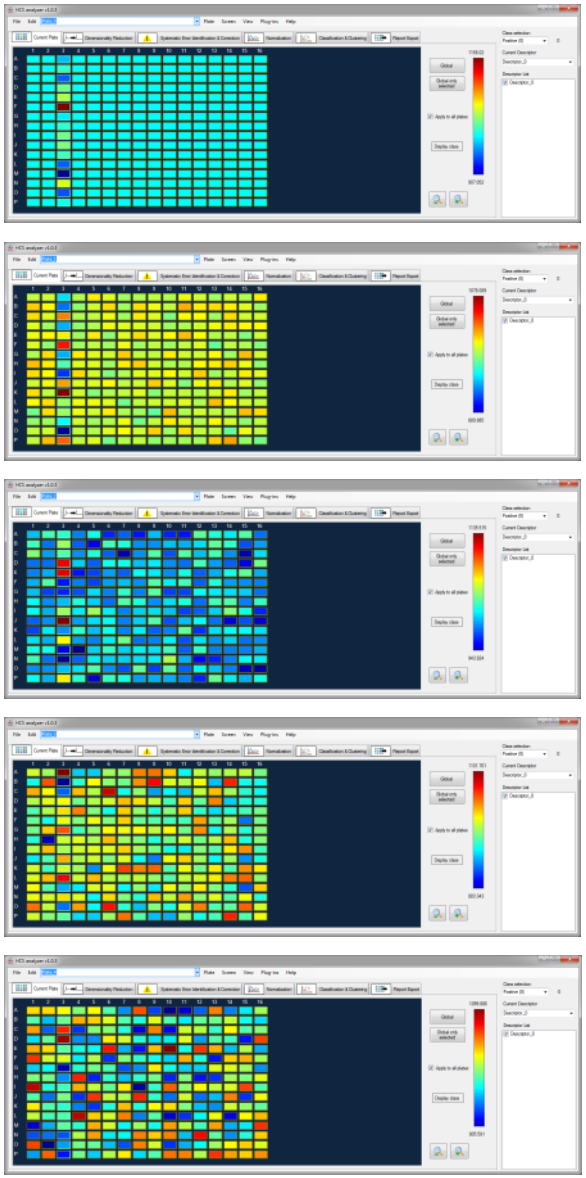

HCS analyzer v1.0.3
File
Edit
Plate_0
Plate
Screen
View
Plug-ins
Help
Current Plate
Dimensionality Reduction
Systematic Error Identification & Correction
Normalization
Classification & Clustering
Report Export
Global
Global only selected
Apply to all plates
Display class
Class selection
Positive (1)
Current Descriptor
Descriptor_0
Descriptor List
14729.53
1707.107

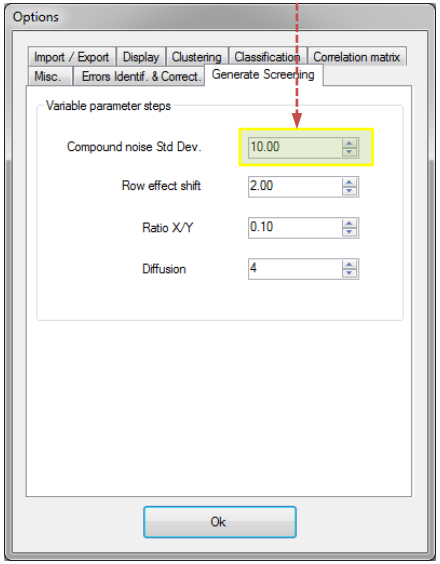

Generate Screening
Number of Plates
Columns
Rows
Bias
Value distributions
Row Effect
Shift
Column Effect
Edge Effect
Iteration
Bowl Effect
Ratio X/Y
Generate


HCS analyzer v1.0.3
File
Edit
Plate_0
Plate
Screen
View
Plug-ins
Help
Current Plate
Dimensionality Reduction
Systematic Error Identification & Correction
Normalization
Classification & Clustering
Report Export
Global
Global only selected
Apply to all plates
Display class
Class selection
Positive (1)
Current Descriptor
Descriptor_0
Descriptor List
11016.653
1577.35

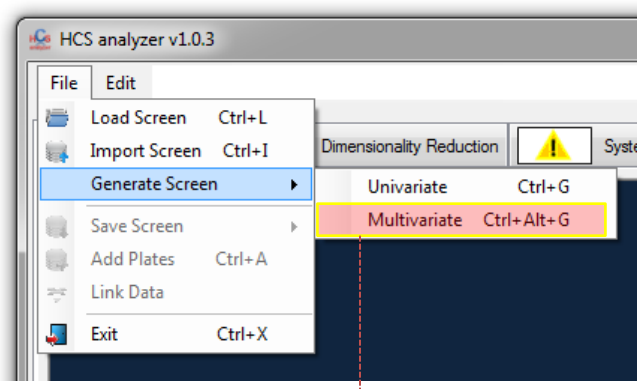
If a parameter **X** is checked, its value will vary from, increasing with a step defined in the options window.

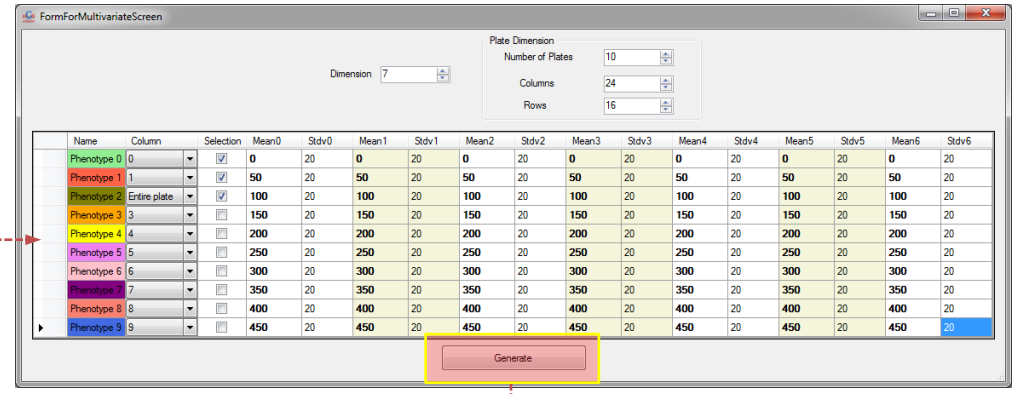




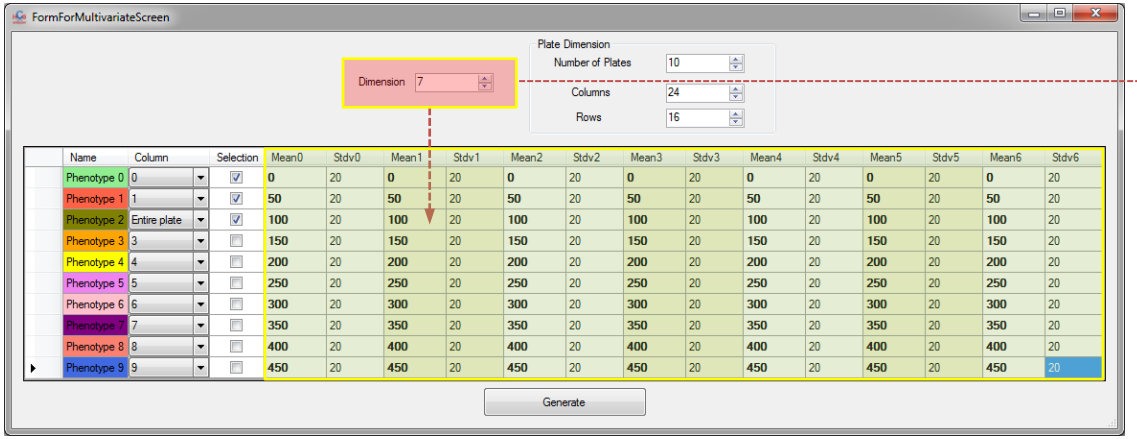


Generating artificial multivariate screening data

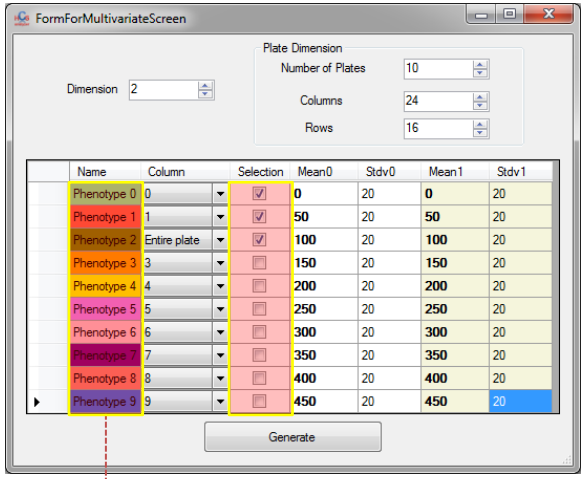

HCS analyzer v1.0.3
File
Edit
Load Screen Ctrl+L
Import Screen Ctrl+I
Generate Screen
Save Screen
Add Plates Ctrl+A
Link Data
Exit Ctrl+X
Dimensionality Reduction
Univariate Ctrl+G
Multivariate Ctrl+Alt+G


FormForMultivariateScreen
Plate Dimension
Number of Plates 10
Columns 24
Rows 16
Dimension 7
Name Column Selection Mean0 Stdv0 Mean1 Stdv1 Mean2 Stdv2 Mean3 Stdv3 Mean4 Stdv4 Mean5 Stdv5 Mean6 Stdv6
Phenotype 0 0 0 20 0 20 0 20 0 20 0 20 0 20 0 20
Phenotype 1 1 50 20 50 20 50 20 50 20 50 20 50 20 50 20
Phenotype 2 Entire plate 100 20 100 20 100 20 100 20 100 20 100 20 100 20
Phenotype 3 3 150 20 150 20 150 20 150 20 150 20 150 20 150 20
Phenotype 4 4 200 20 200 20 200 20 200 20 200 20 200 20 200 20
Phenotype 5 5 250 20 250 20 250 20 250 20 250 20 250 20 250 20
Phenotype 6 6 300 20 300 20 300 20 300 20 300 20 300 20 300 20
Phenotype 7 7 350 20 350 20 350 20 350 20 350 20 350 20 350 20
Phenotype 8 8 400 20 400 20 400 20 400 20 400 20 400 20 400 20
Phenotype 9 9 450 20 450 20 450 20 450 20 450 20 450 20 450 20
Generate

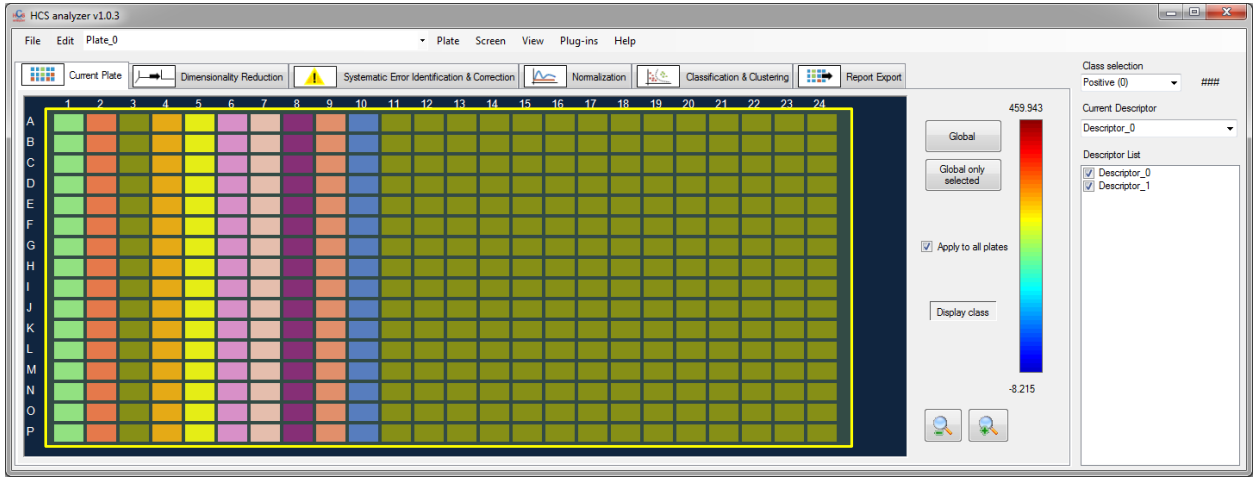
HCS analyzer v1.0.3
File Edit Plate_0 Plate Screen View Plug-ins Help
Current Plate
Dimensionality Reduction
Systematic Error Identification & Correction
Normalization
Classification & Clustering
Report Export
Global
Global only selected
Apply to all plates
Display class
Class selection
Current Descriptor
Descriptor_0
Descriptor List
Descriptor_0
Descriptor_1
Descriptor_2
Descriptor_3
Descriptor_4
Descriptor_5
Descriptor_6

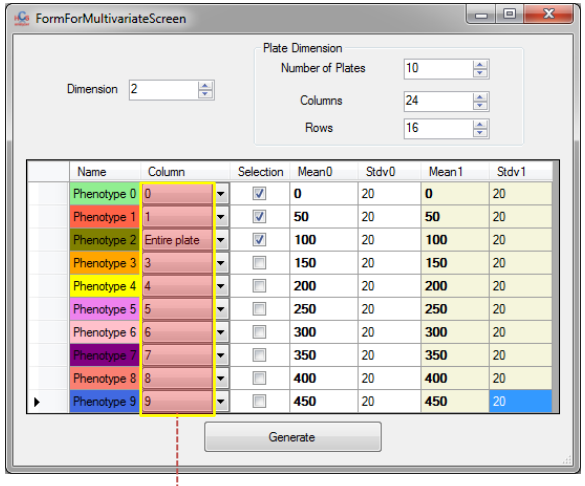


The dimension corresponds to the number of descriptors

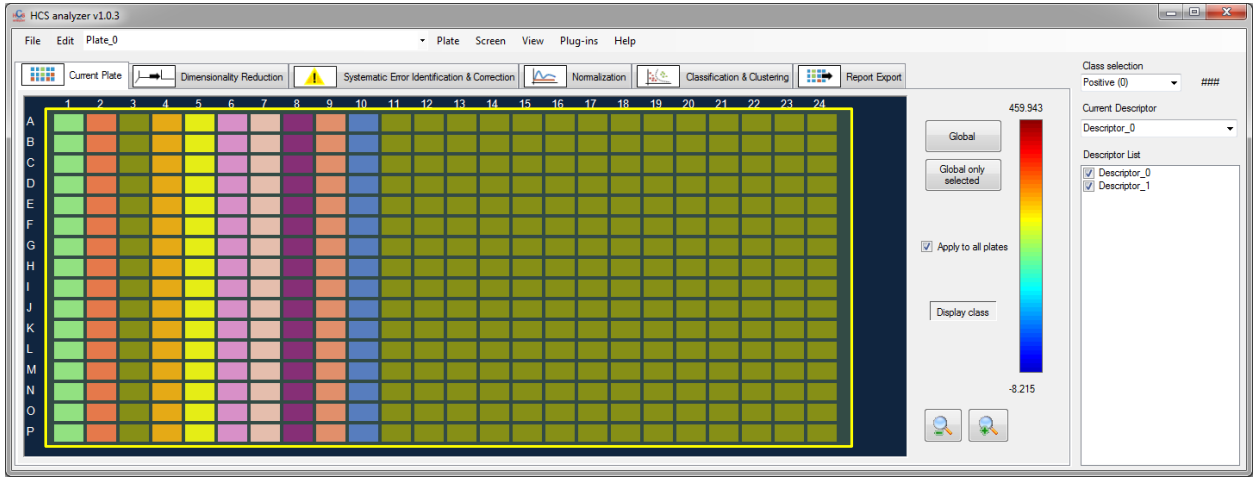


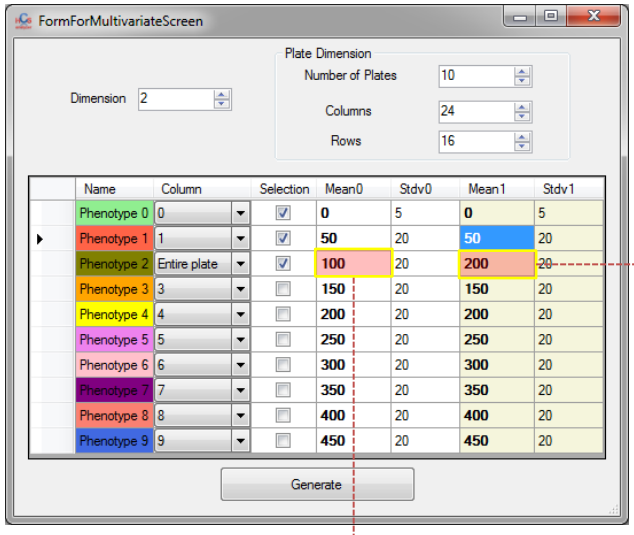
Up to 10 different clouds can be generated



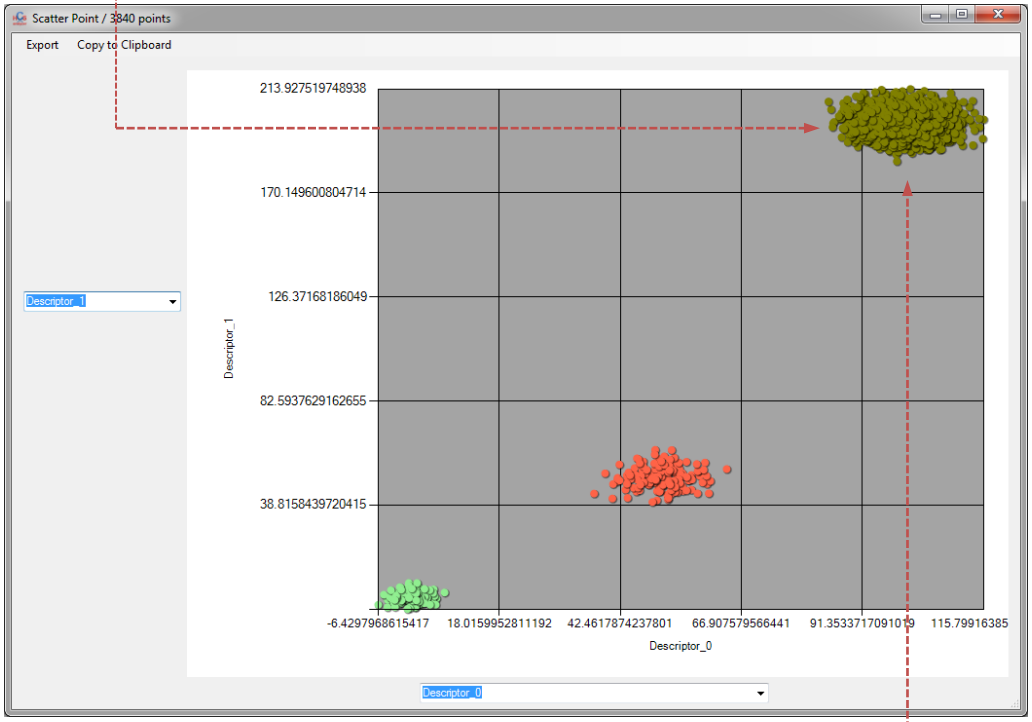


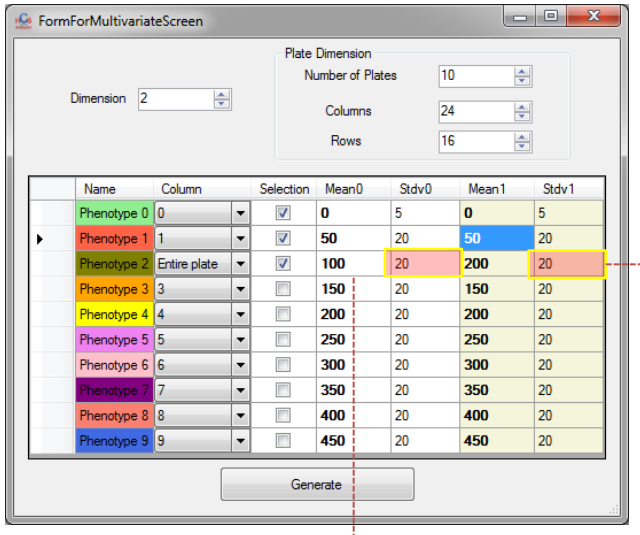
Their positions within the plate are defined by column



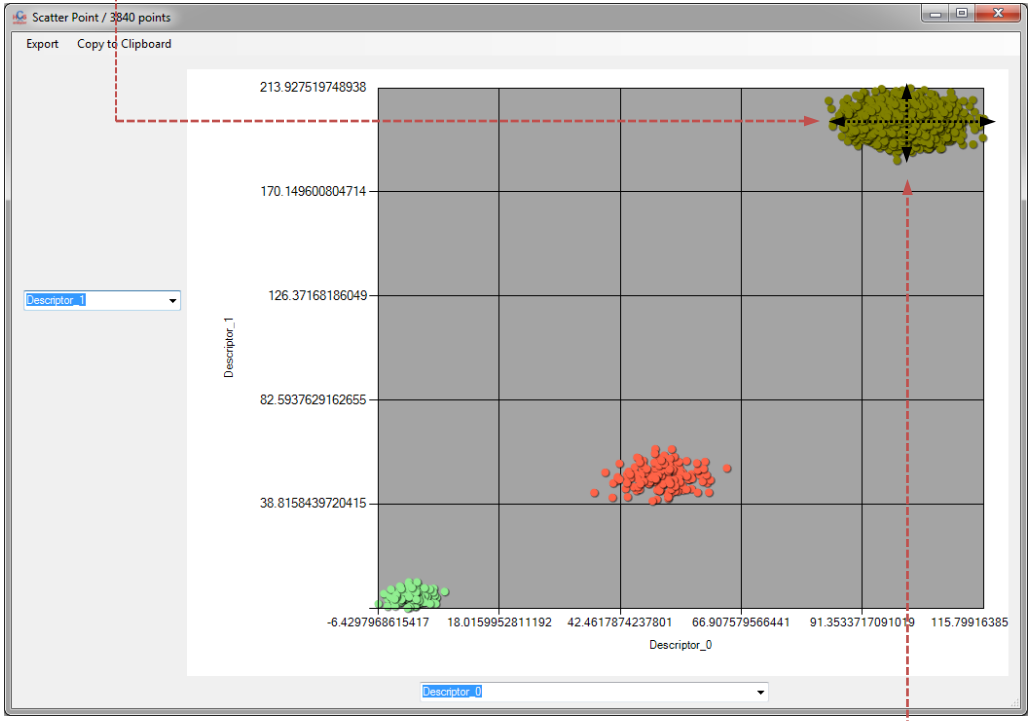


Each cloud (phenotype) is modeled by a Gaussian distribution defined by its means in every dimension

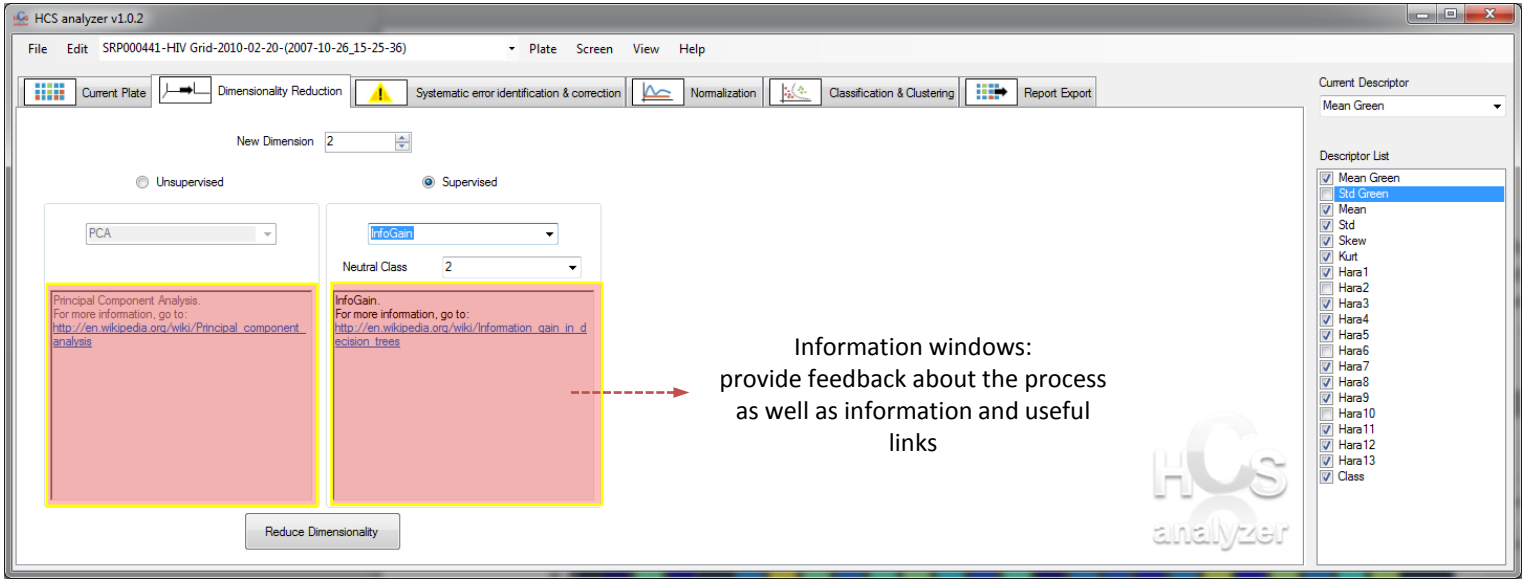




As well as its variances.

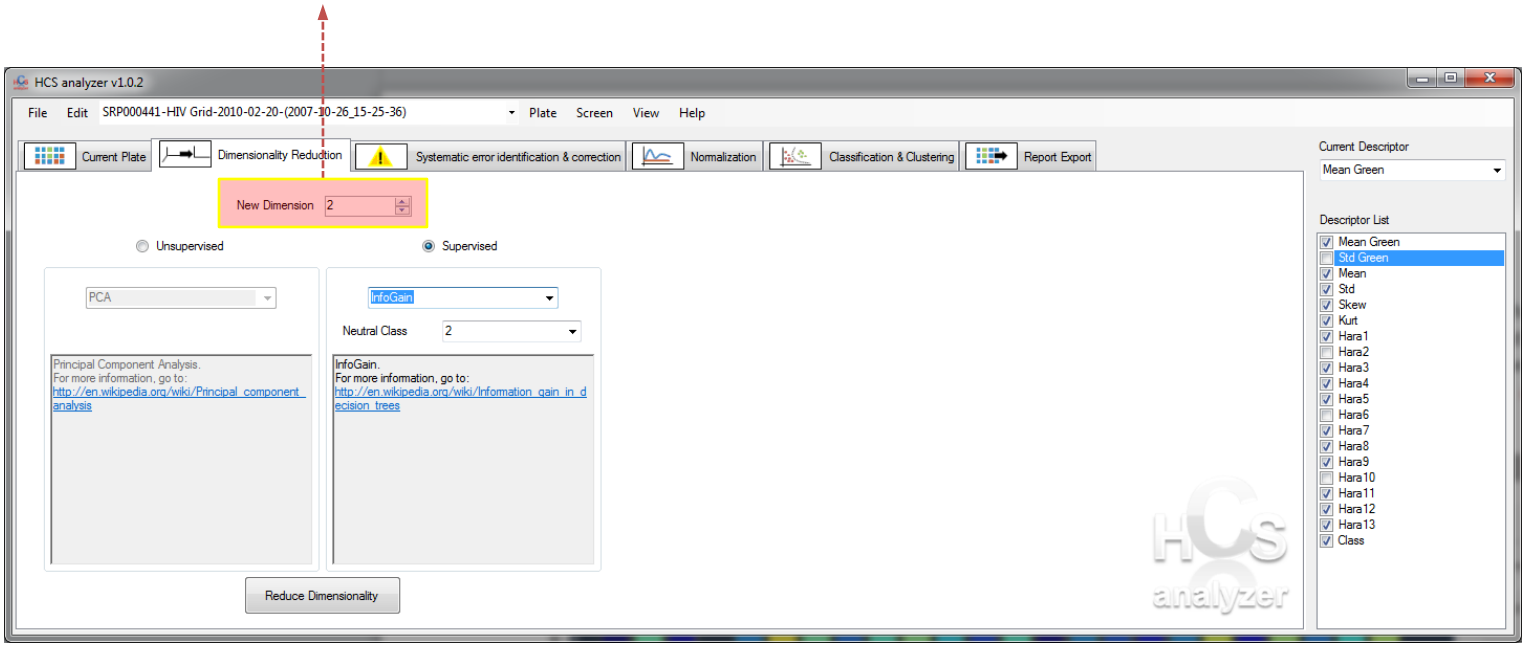


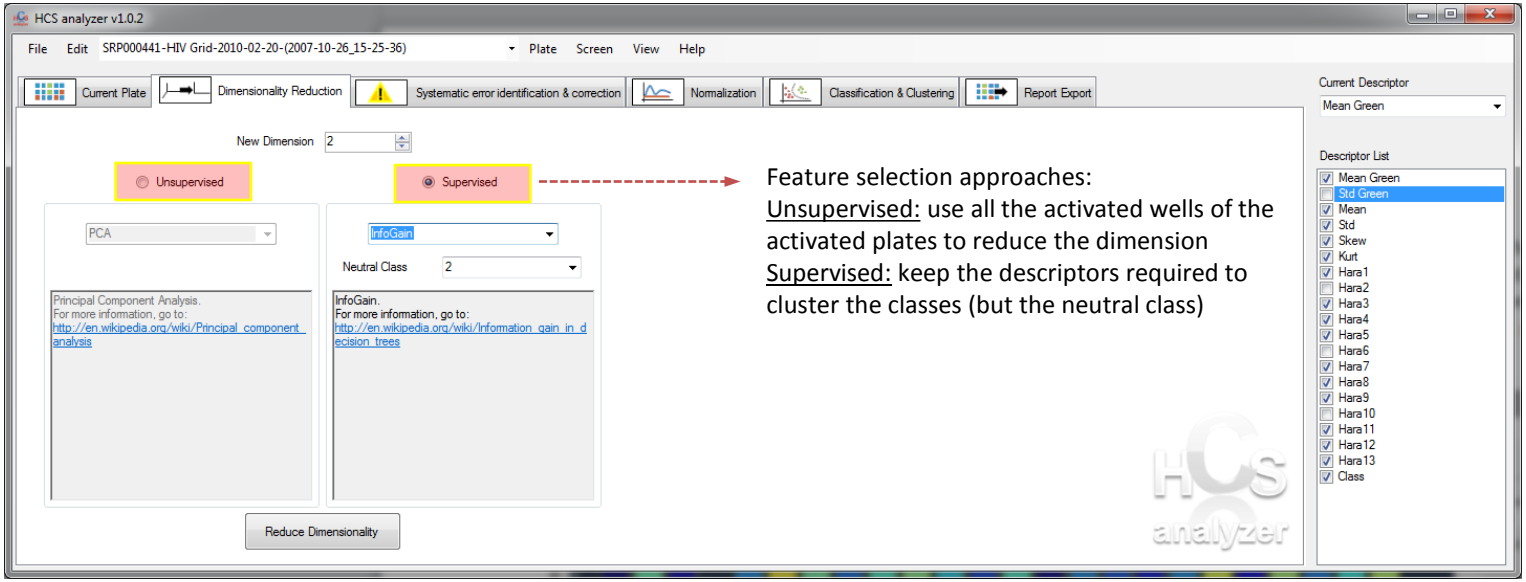
Dimensionality reduction



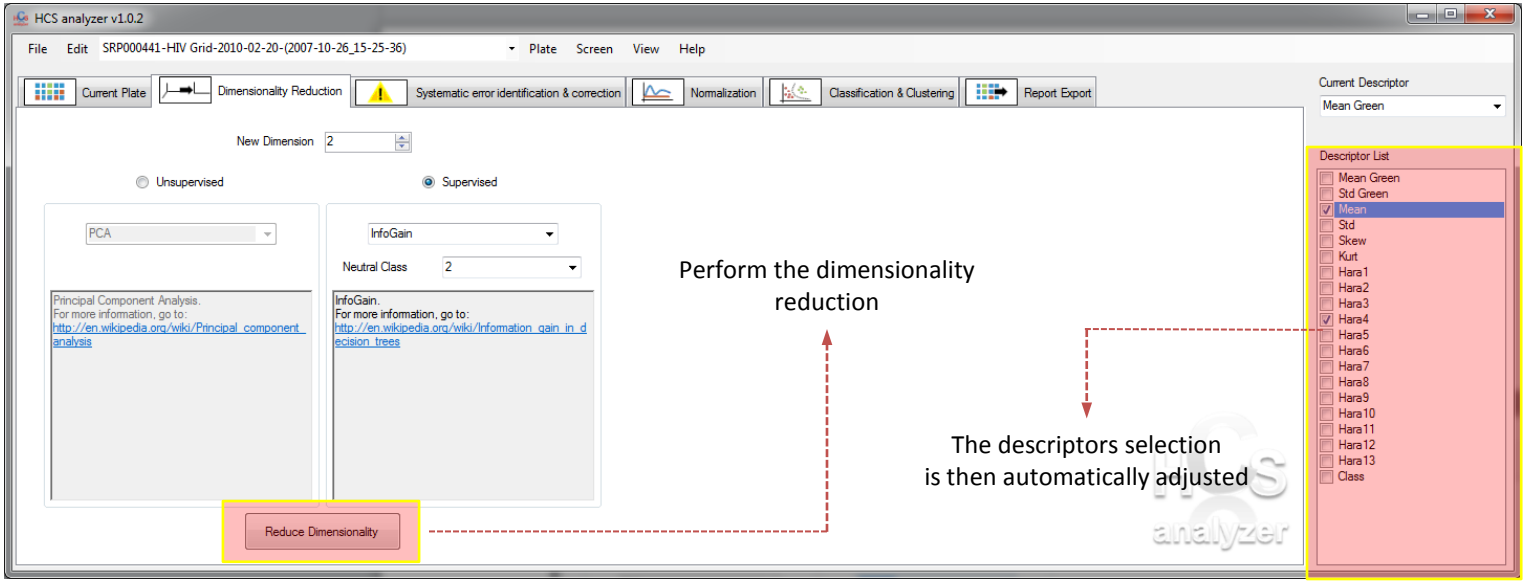
Information windows:
provide feedback about the process as well as information and useful links

Desired new dimension

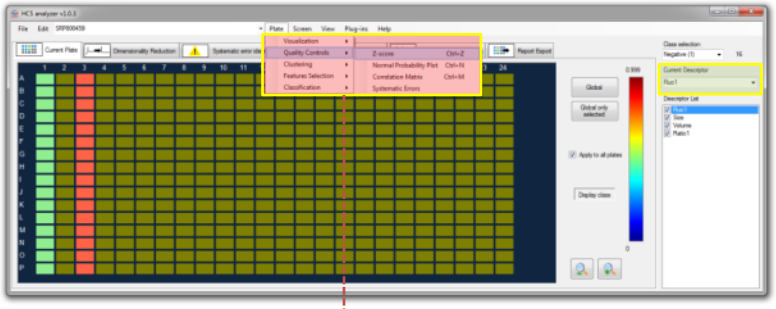


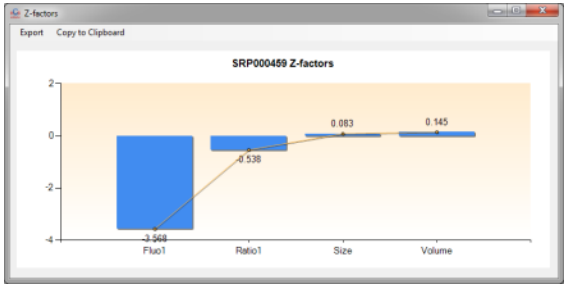


Feature selection approaches:
Unsupervised: use all the activated wells of the activated plates to reduce the dimension
Supervised: keep the descriptors required to cluster the classes (but the neutral class)

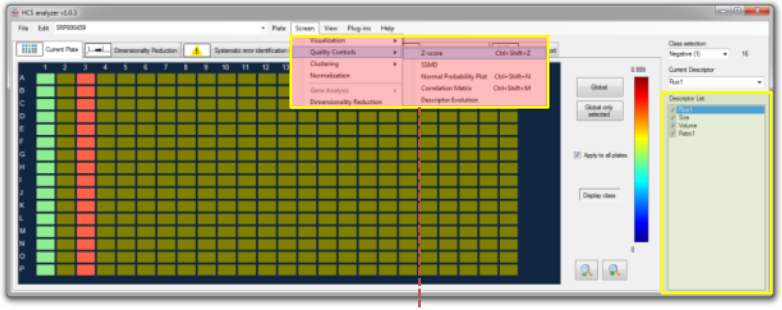

HCS analyzer v1.0.2
File
Edit
SRP000441-HIV Grid-2010-02-20-(2007-10-26_15-25-36)
Plate
Screen
View
Help
Current Plate
Dimensionality Reduction
Systematic error identification & correction
Normalization
Classification & Clustering
Report Export
Current Descriptor
Mean Green
New Dimension
2
Unsupervised
Supervised
PCA
Principal Component Analysis.
For more information, go to:
http://en.wikipedia.org/wiki/Principal_component_analysis
InfoGain
Neutral Class
2
InfoGain.
For more information, go to:
http://en.wikipedia.org/wiki/Information_gain_in_decision_trees
Reduce Dimensionality
Descriptor List
Mean Green
Std Green
Mean
Std
Skew
Kurt
Hara1
Hara2
Hara3
Hara4
Hara5
Hara6
Hara7
Hara8
Hara9
Hara10
Hara11
Hara12
Hara13
Class
Perform the dimensionality reduction
The descriptors selection is then automatically adjusted

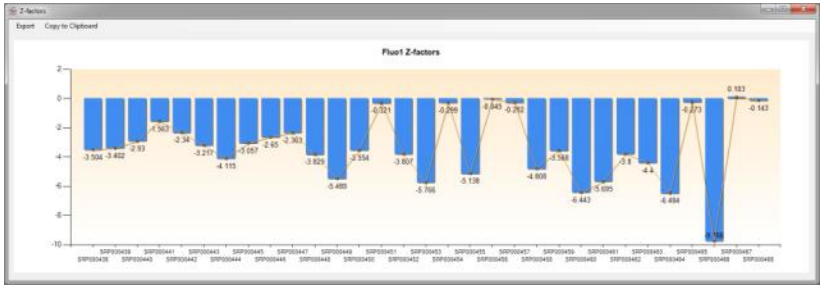
Quality controls



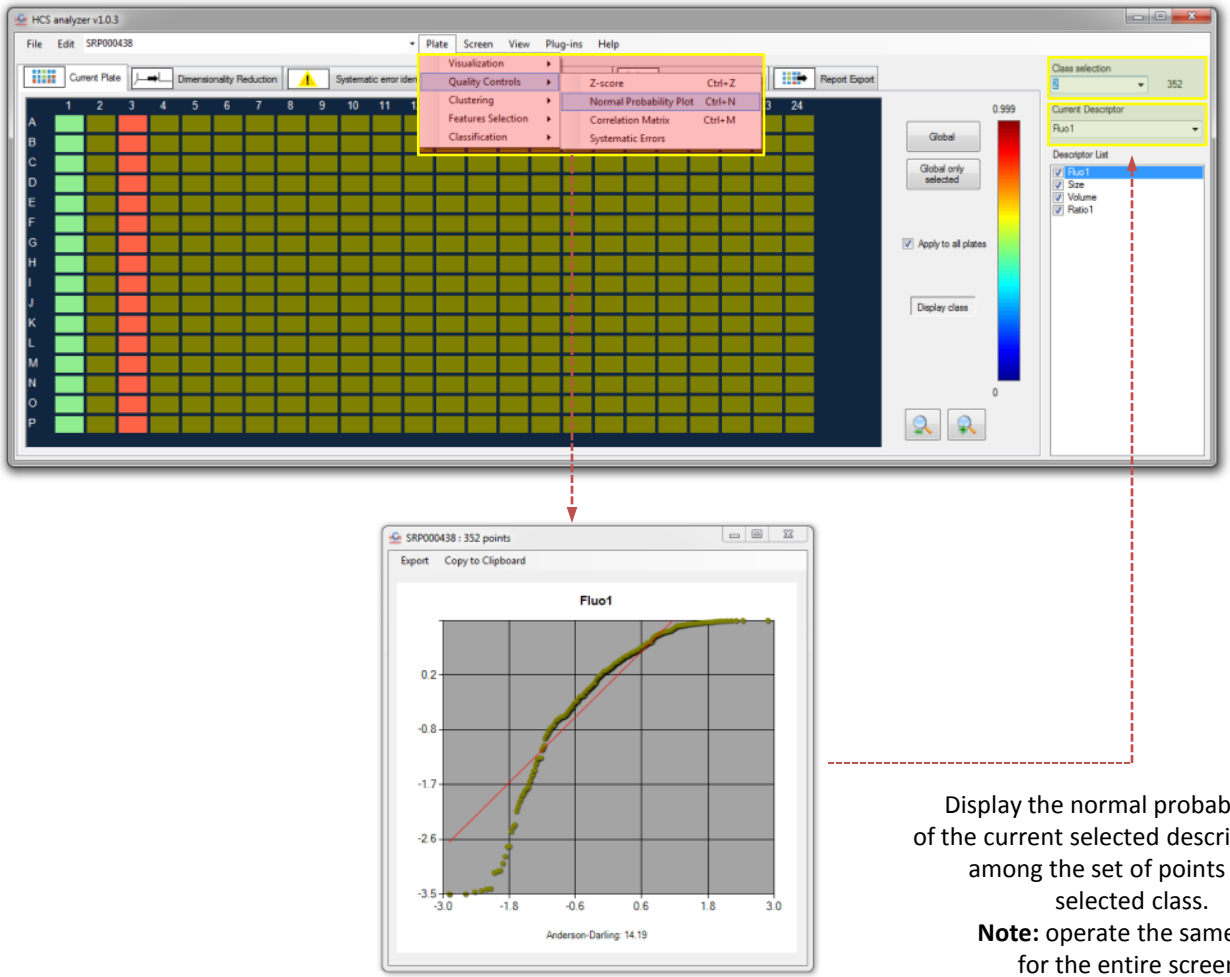


Display the sorted Z-factors of the current plate for each selected descriptor



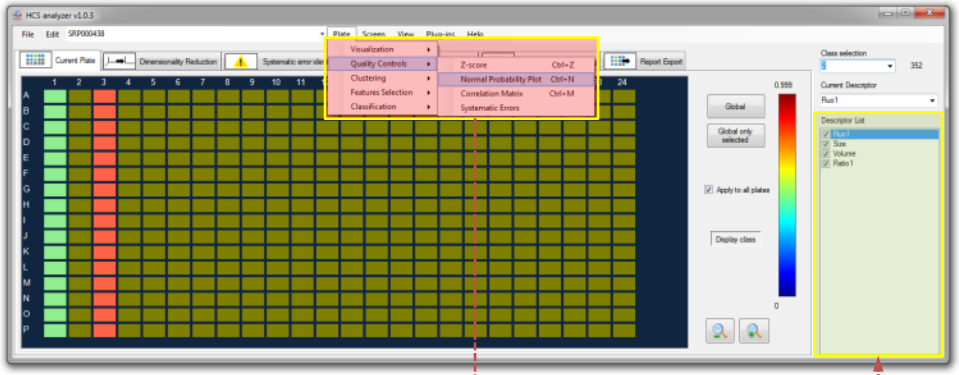


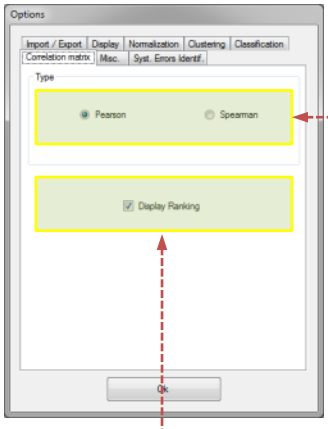
Display the sorted Z-factors of the selected descriptor for all the active plates

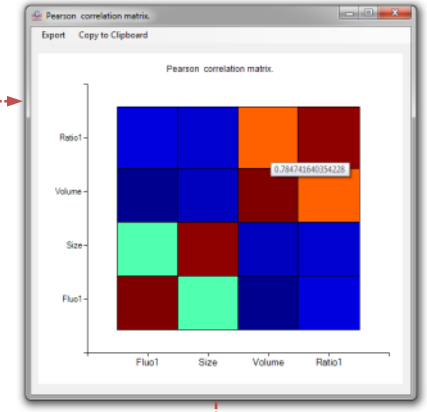


Display the normal probability plot of the current selected descriptor values among the set of points of the selected class.

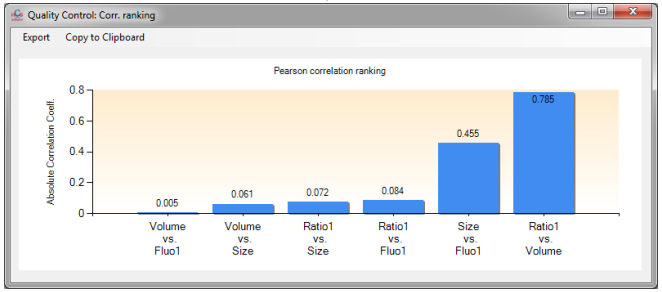
Note: operate the same way for the entire screen.



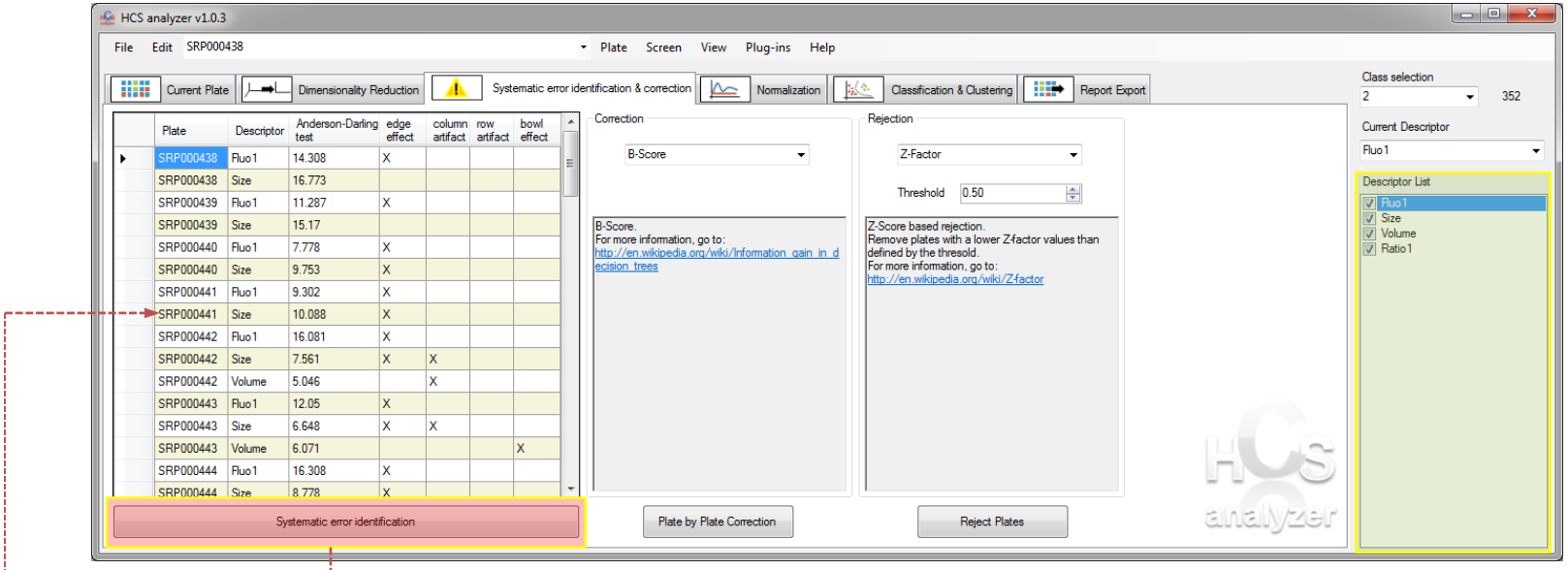




Display the correlation matrix of the active descriptors

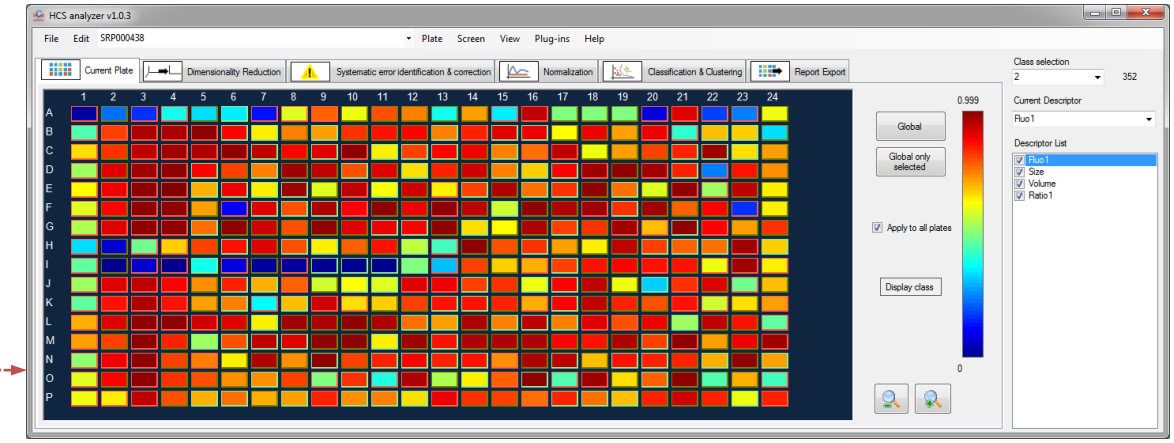


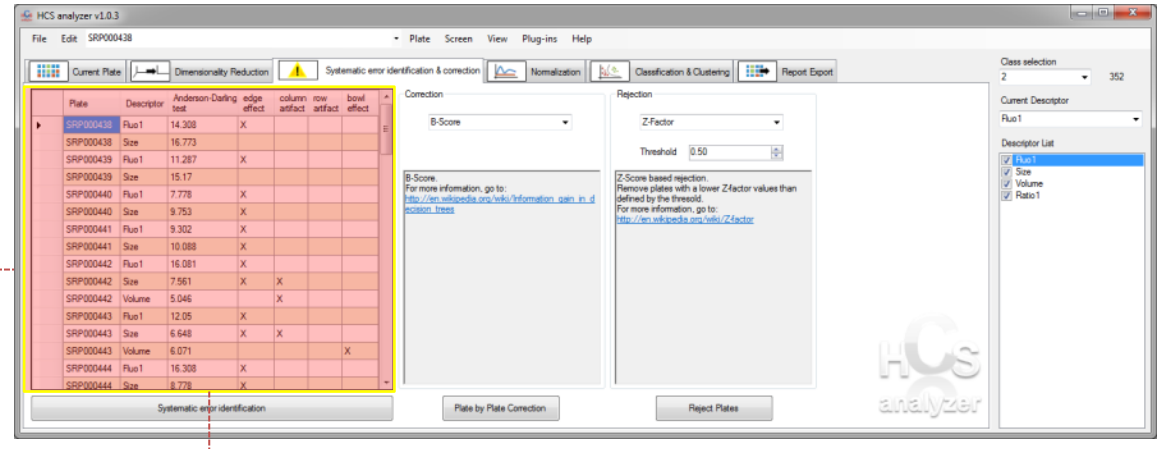
And the ranked corresponding histogram (optional)

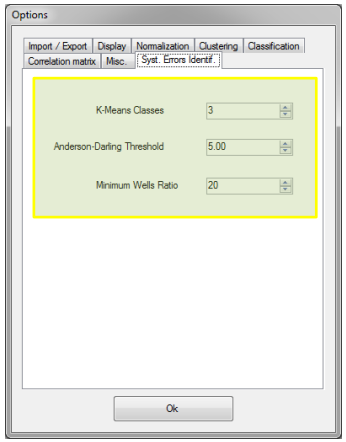


Identify the potential systematic errors for each selected plates on each active descriptor

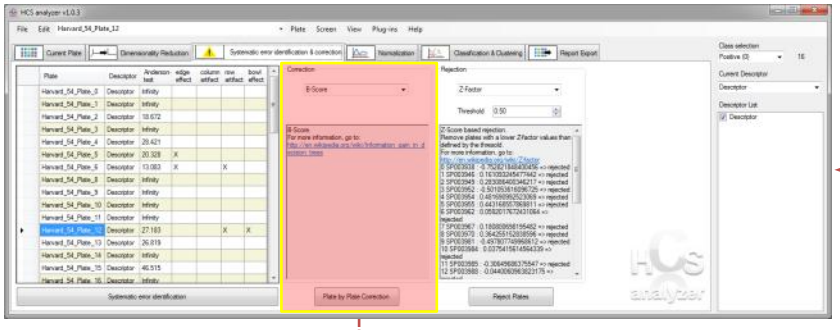
Double click on a row display the corresponding readouts







Systematic errors identification parameters can be changed by the options window



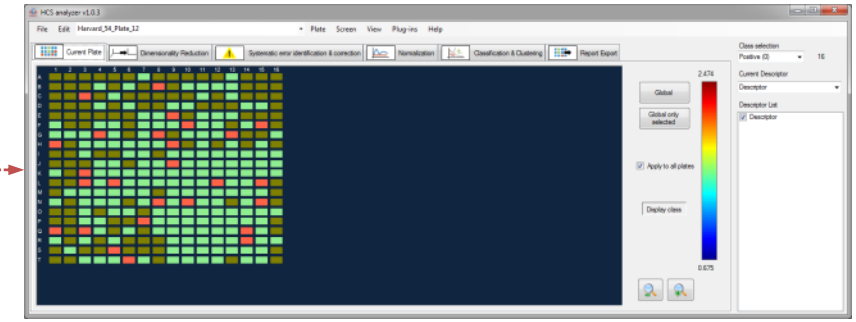
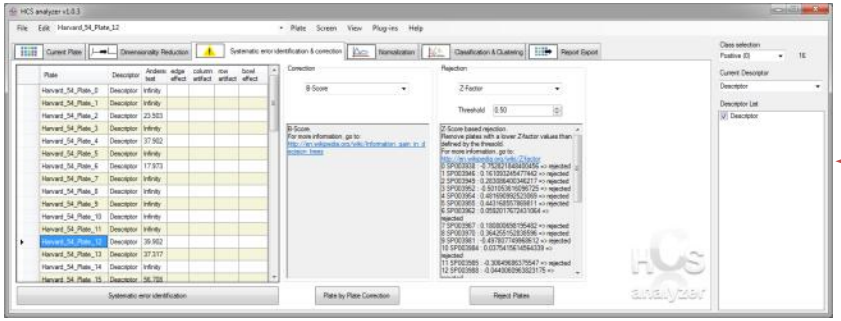
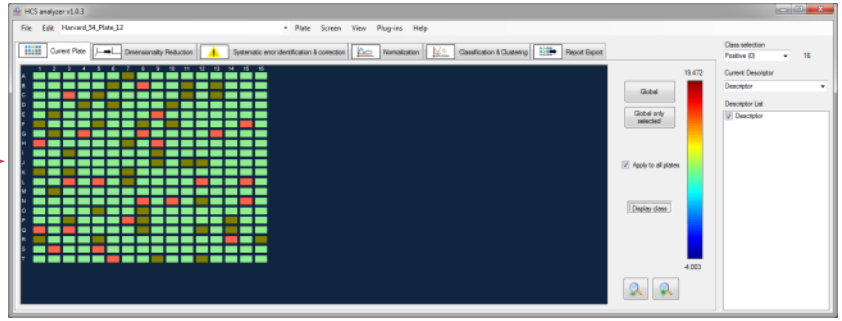
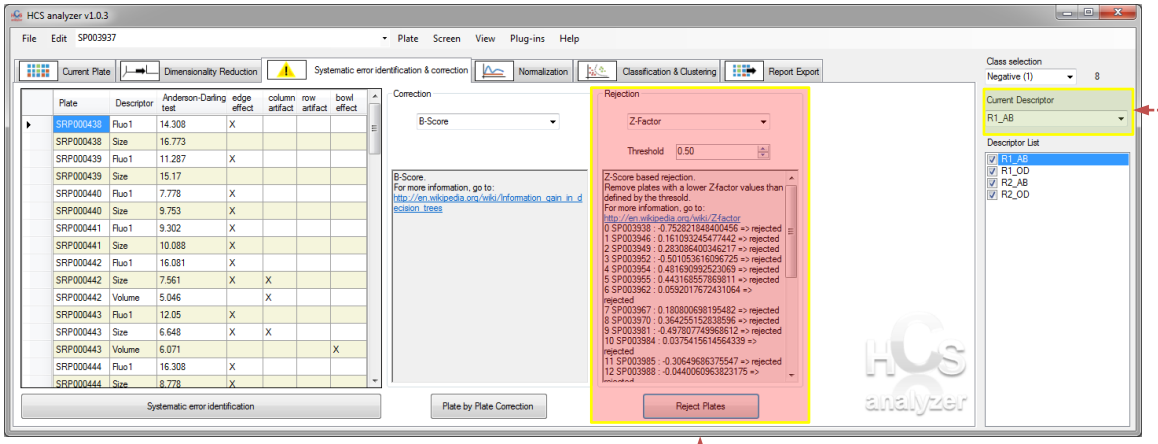


Plate by plate, and descriptor by descriptor, correction procedure can be performed using the dedicated function



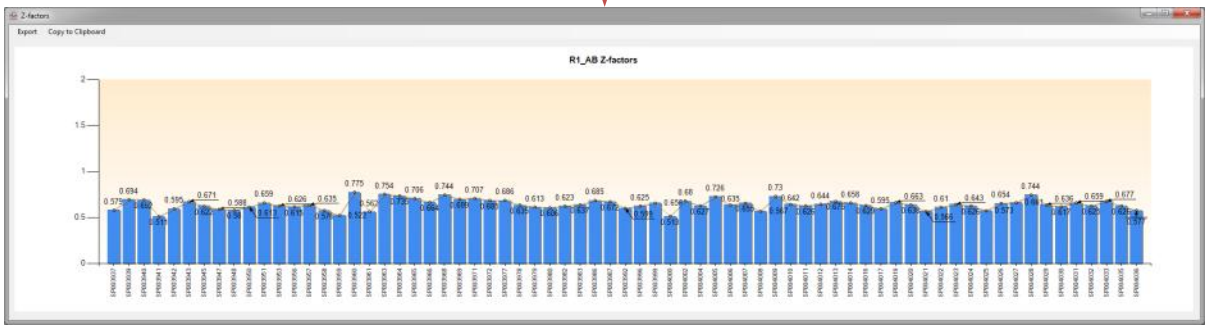


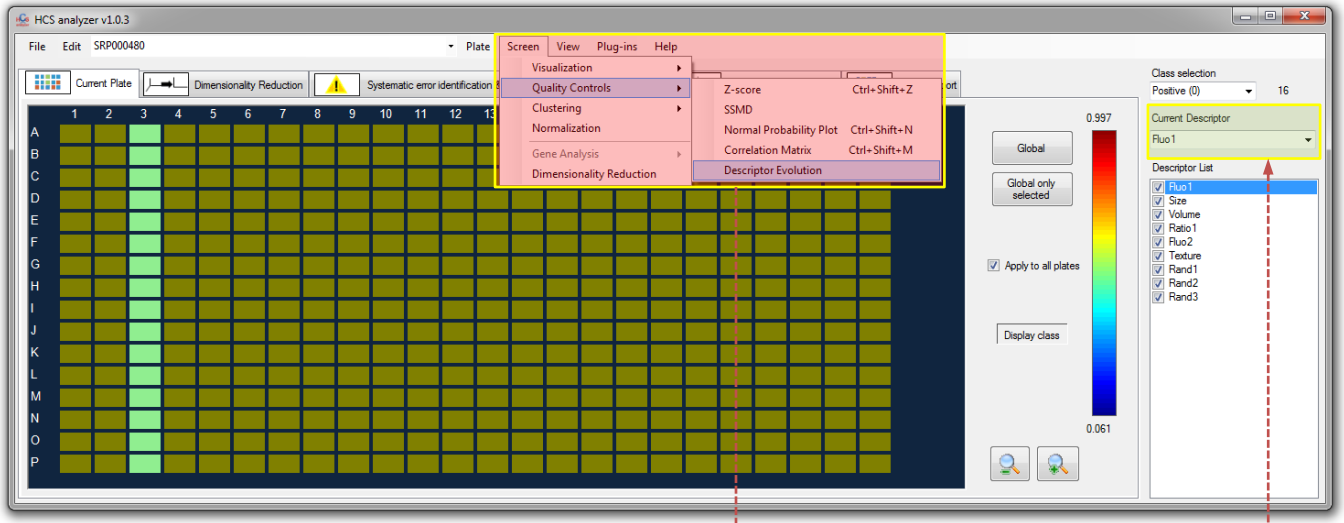


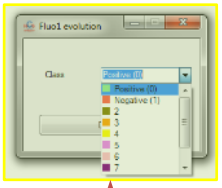
Plates can be rejected
regarding a chosen parameter
(here Z-factor on the current descriptor)

before

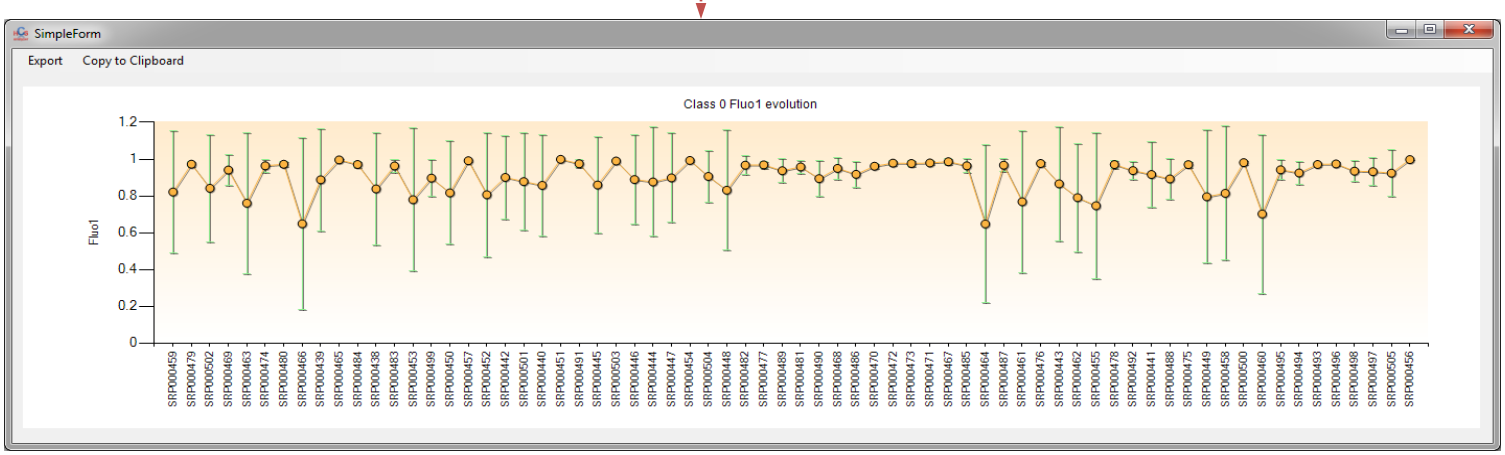
after





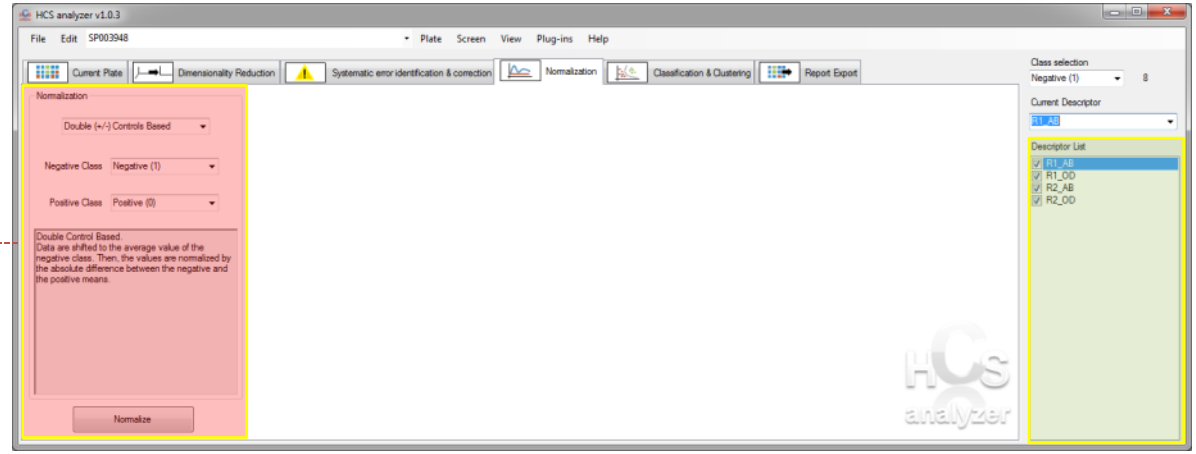


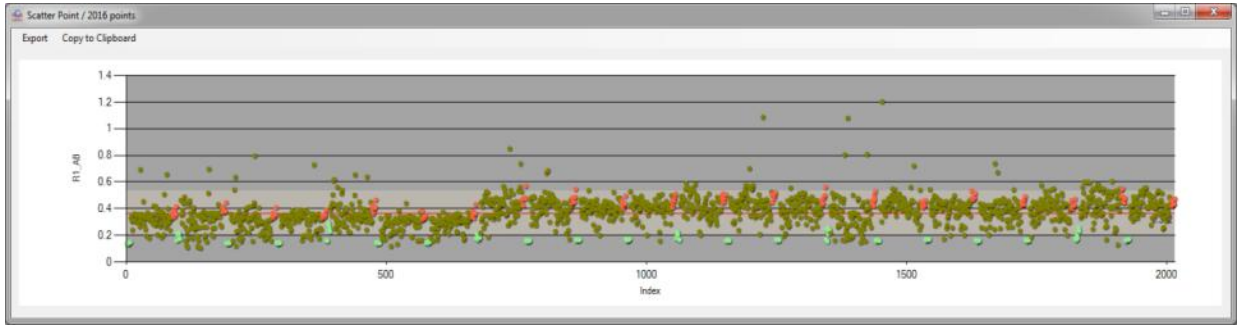
Evolution (average and standard deviation) of the current descriptor within a defined class can be monitored to identify abnormalities



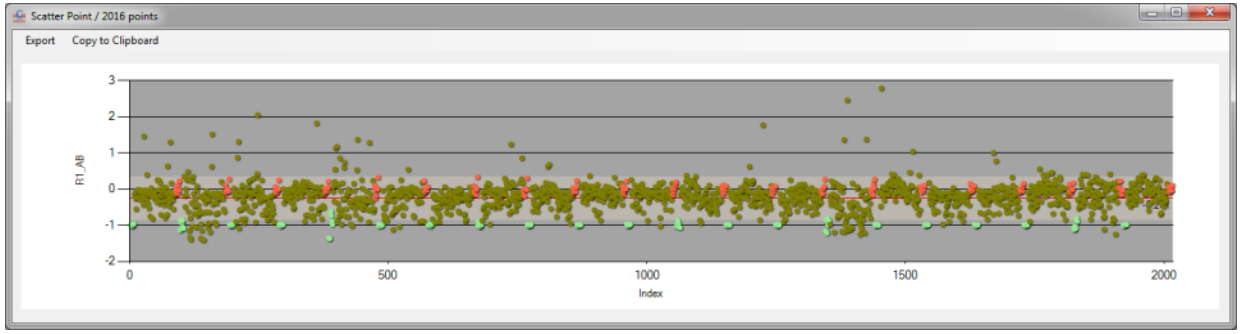
Normalization

Various approaches for data normalization of the screening data are available (controls based or not)





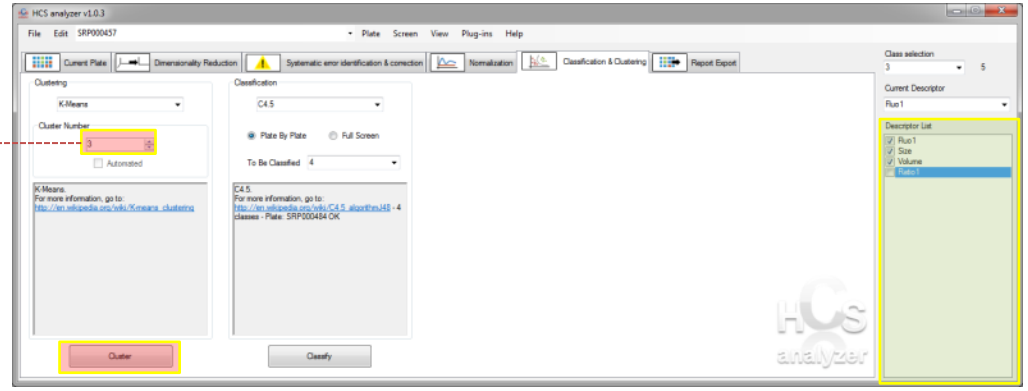
before

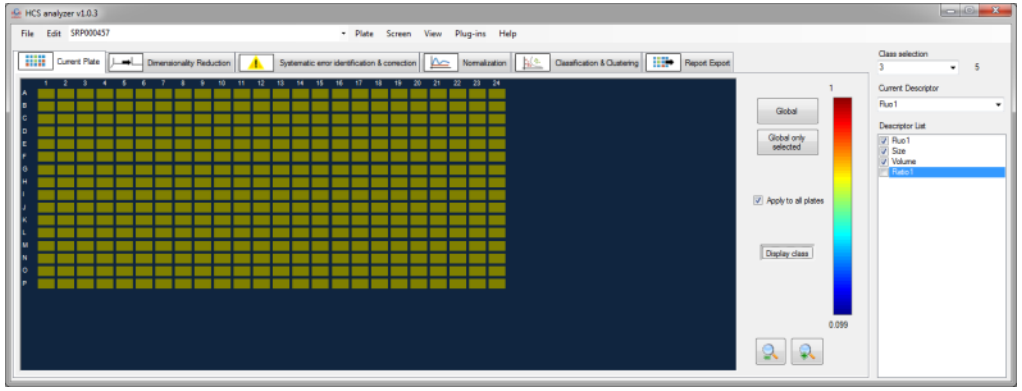


after

Clustering and classification

The user has to define the desired cluster number.

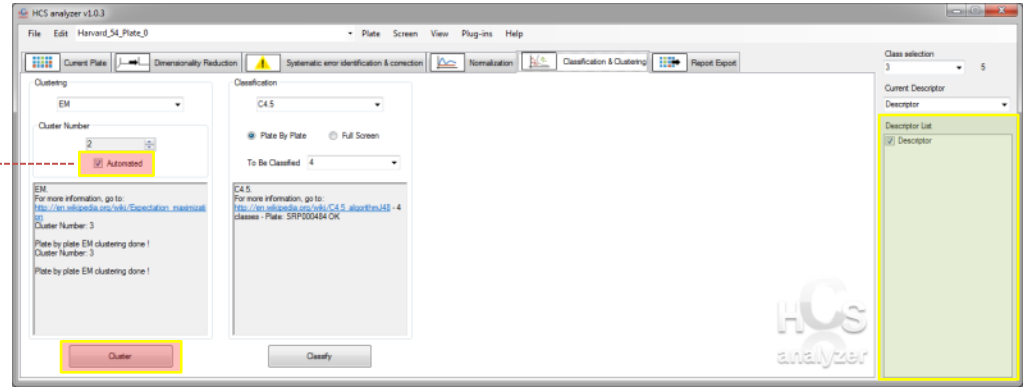


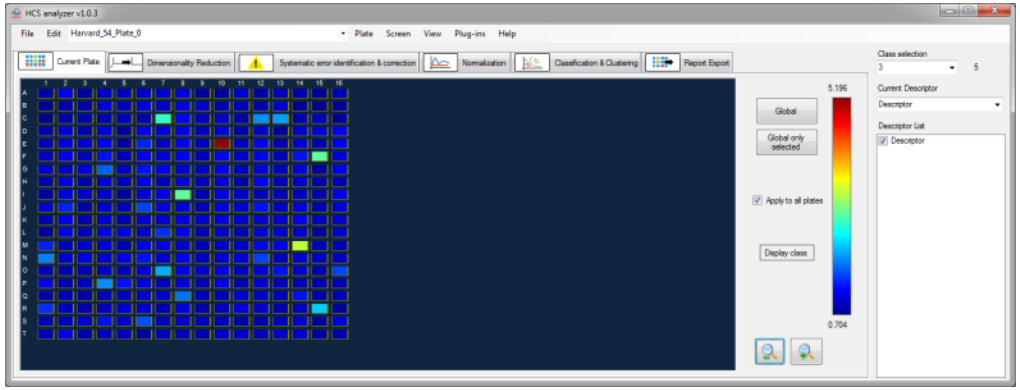


before

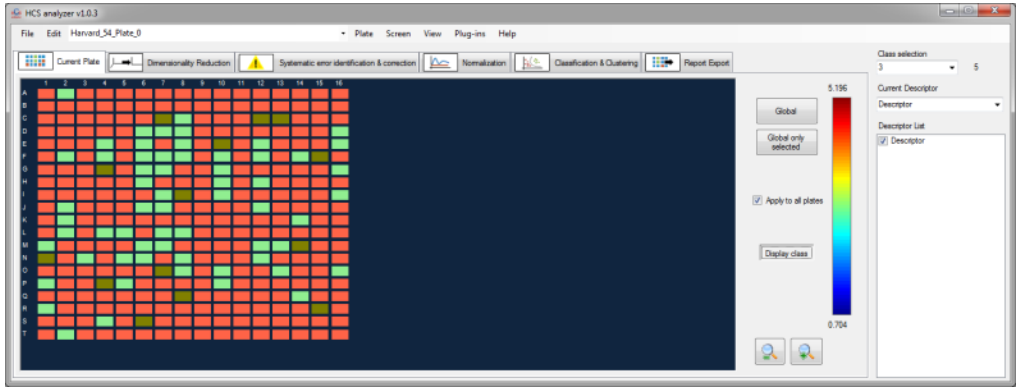
after

Some clustering methods allow automated evaluation of the optimum number of clusters.
Note: if more than 10 classes are detected, the clustering is not operated.

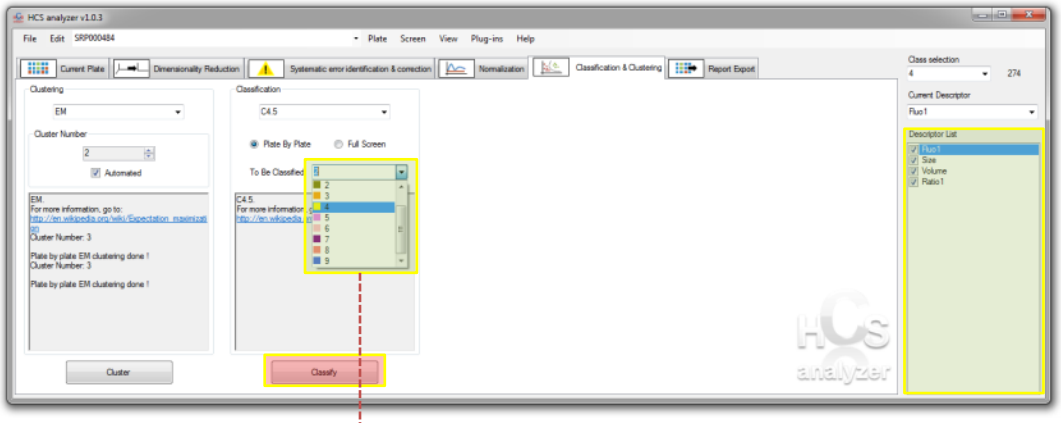




Original readouts

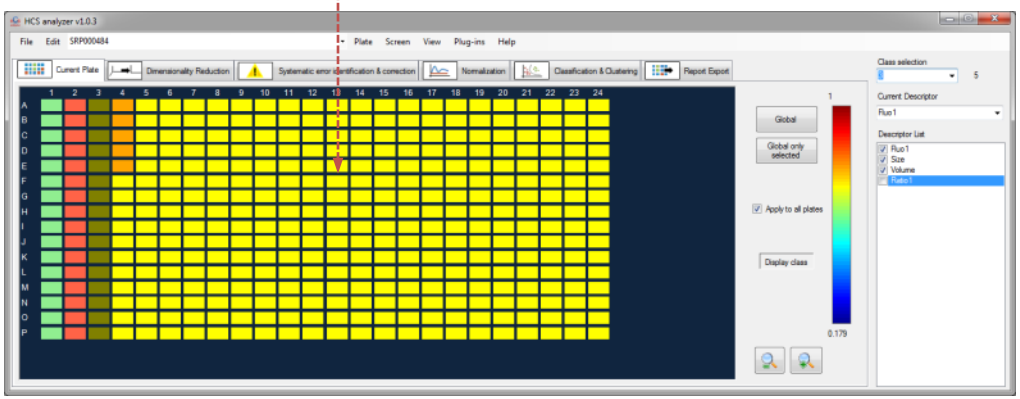


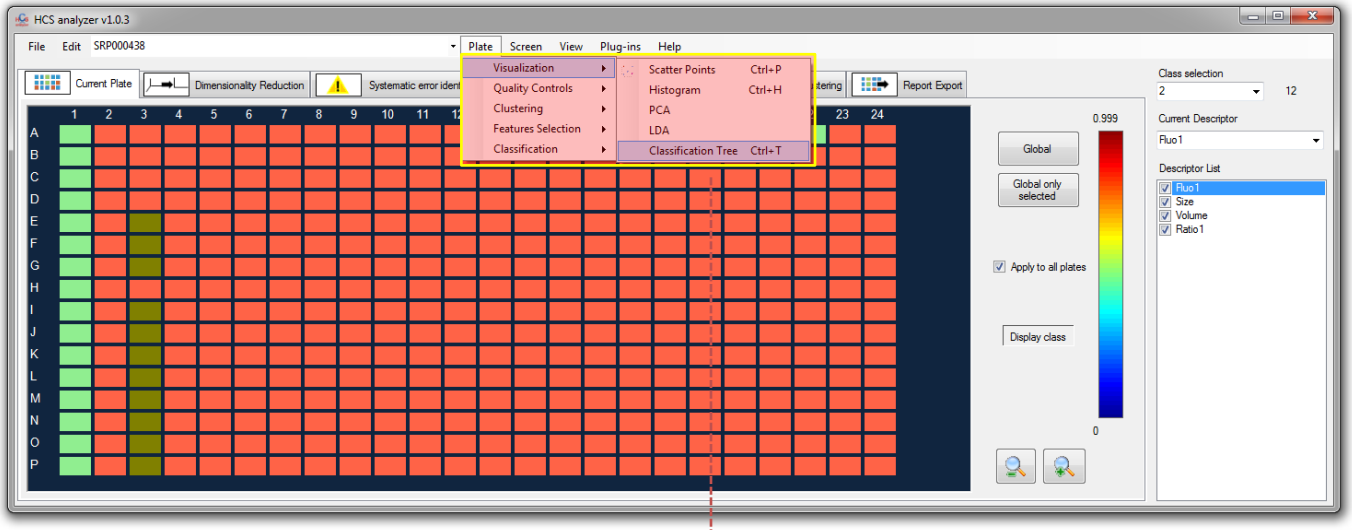
Clustering (here: 3 classes have identified)



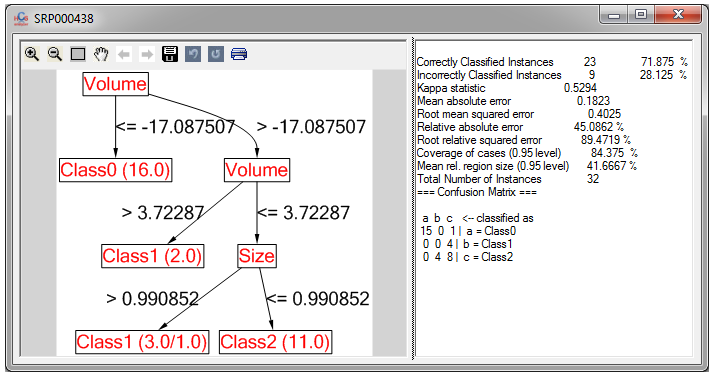
This class will not be used for the learning, but will be classified.

The user has to define the classes for the training.
Plate by plate: the training step is performed on the each plate independently.

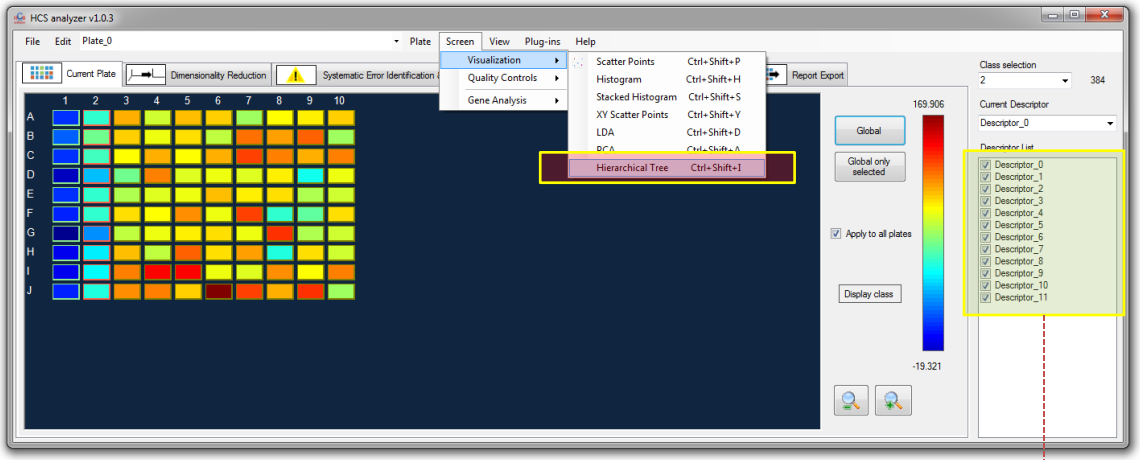




If the classification operated is tree based (C4.5) a tree diagram is affected for each plate.

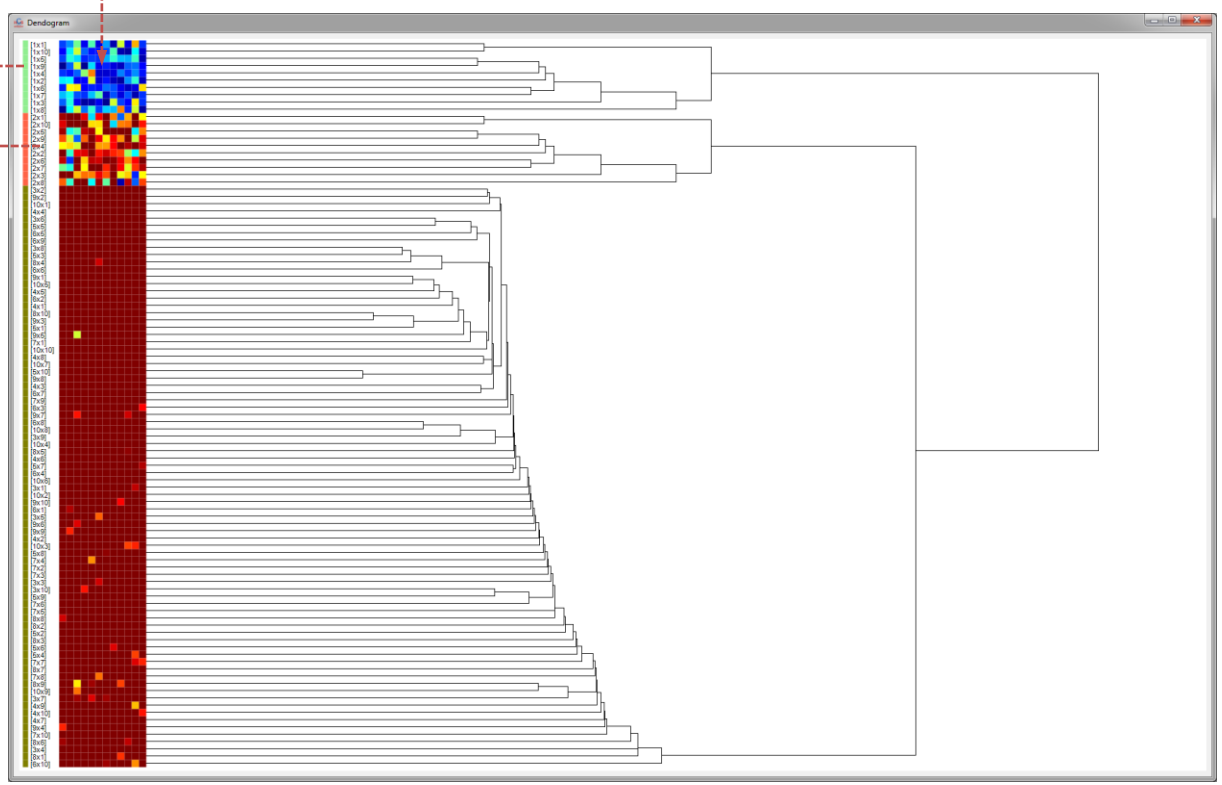


Hierarchical Tree visualization

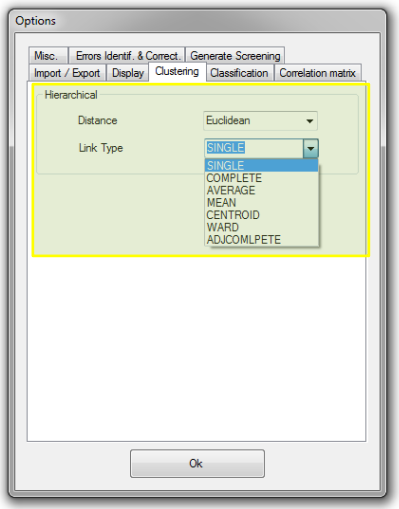


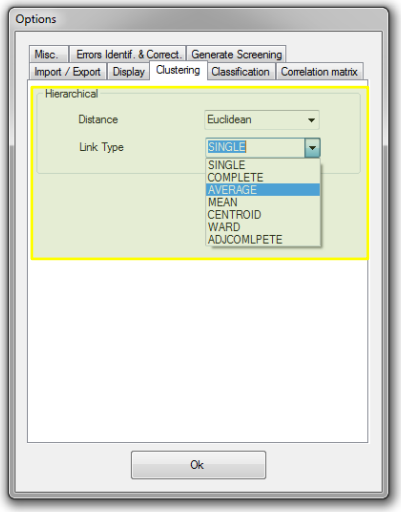
Class color

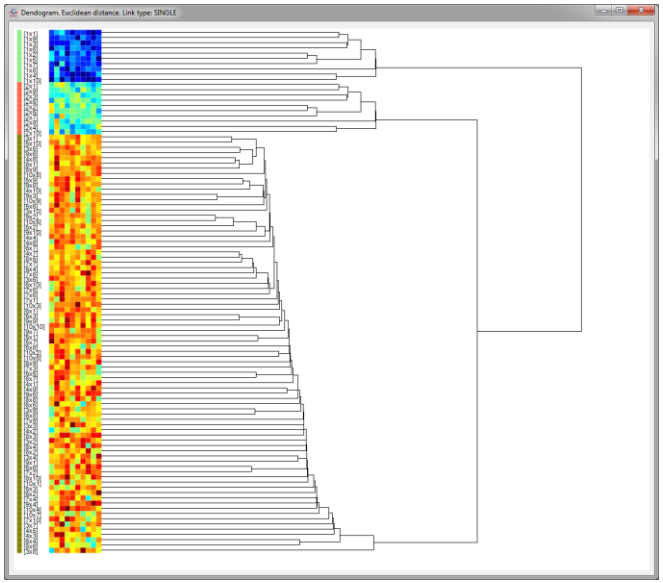
Well position

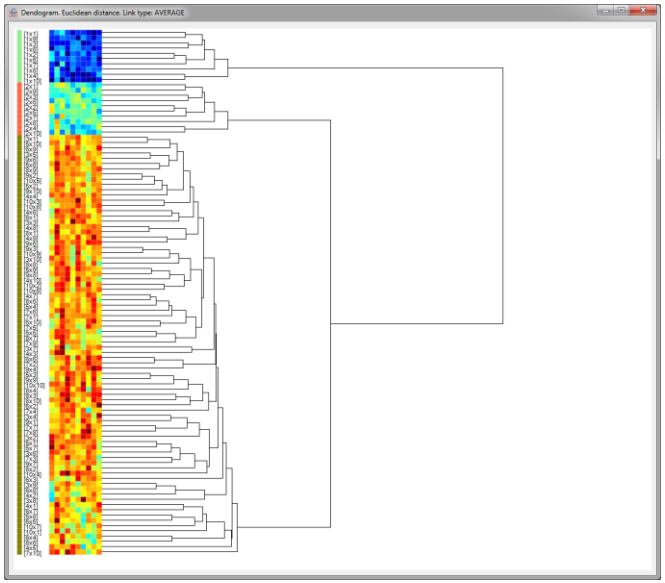


Note: this operation can be time consuming for large number of data

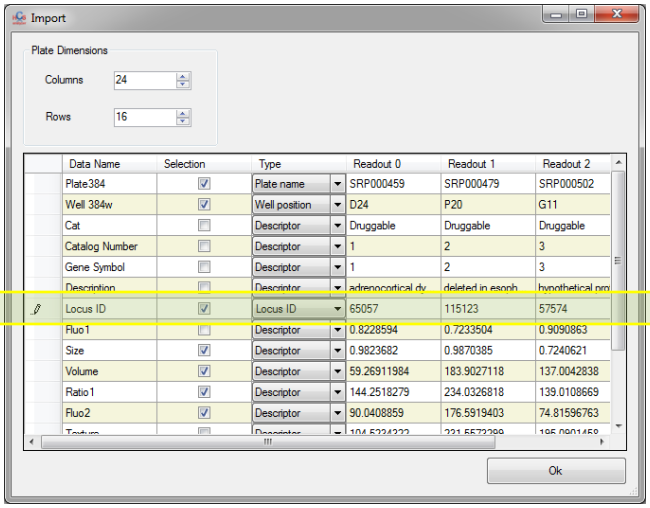

Options
Misc.
Errors Identif. & Correct.
Generate Screening
Import / Export
Display
Clustering
Classification
Correlation matrix
Hierarchical
Distance
Euclidean
Link Type
SINGLE
SINGLE
COMPLETE
AVERAGE
MEAN
CENTROID
WARD
ADJCOMLPETE
Ok


Options
Misc.
Errors Identif. & Correct.
Generate Screening
Import / Export
Display
Clustering
Classification
Correlation matrix
Hierarchical
Distance
Euclidean
Link Type
SINGLE
SINGLE
COMPLETE
AVERAGE
MEAN
CENTROID
WARD
ADJCOMLPETE
Ok


Dendrogram. Euclidean distance. Link type: SINGLE


Dendrogram. Euclidean distance. Link type: AVERAGE

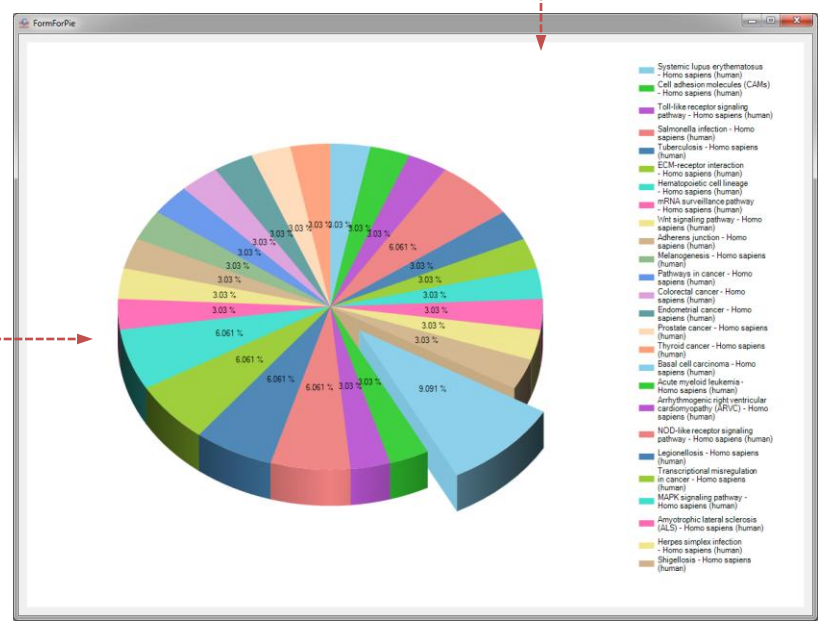
Pathways analysis



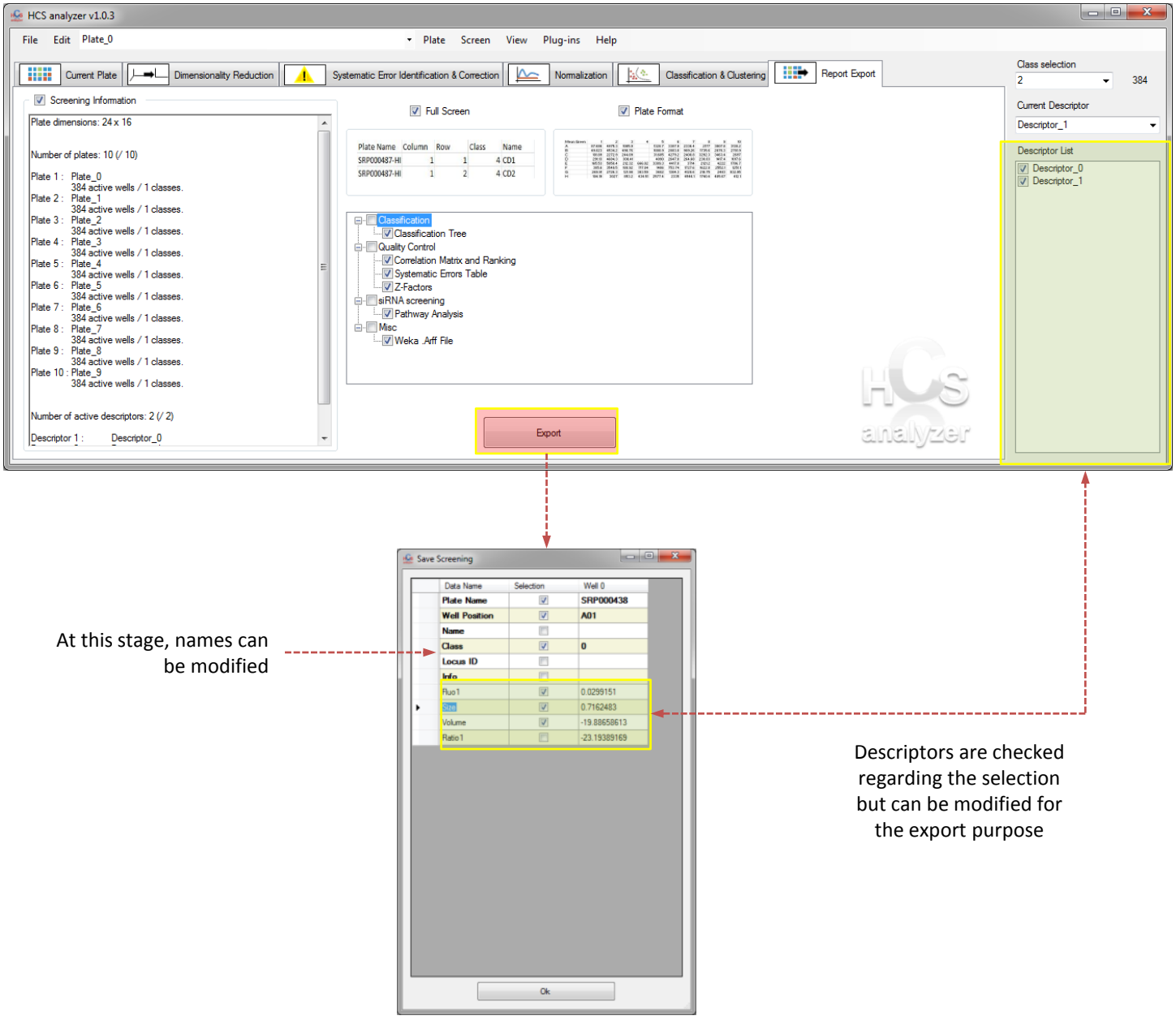
Locus IDs have to be associated to each well

Note: this operation requires internet connection

Recurrence of each specific pathway

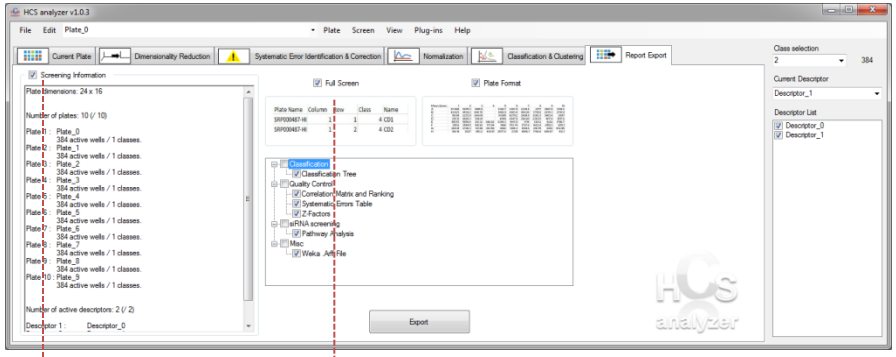


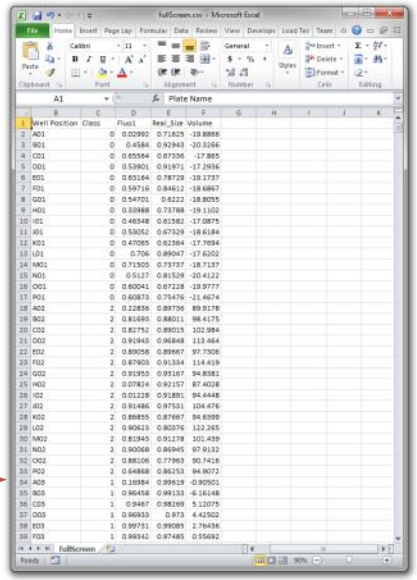
Export

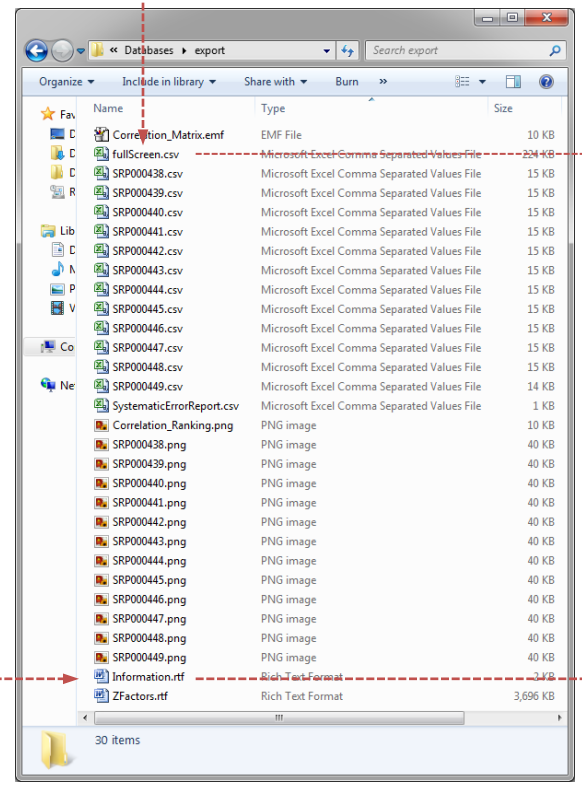


At this stage, names can be modified

Descriptors are checked regarding the selection but can be modified for the export purpose


HCS analyzer v1.0.3
File Edit Plate_0
Plate Screen View Plug-ins Help
Current Plate
Dimensionality Reduction
Systematic Error Identification & Correction
Normalization
Classification & Clustering
Report Export
Screening Information
Plate dimensions: 24 x 16
Number of plates: 10 (/ 10)
Plate 0 : Plate_0
384 active wells / 1 classes.
Plate 1 : Plate_1
384 active wells / 1 classes.
Plate 2 : Plate_2
384 active wells / 1 classes.
Plate 3 : Plate_3
384 active wells / 1 classes.
Plate 4 : Plate_4
384 active wells / 1 classes.
Plate 5 : Plate_5
384 active wells / 1 classes.
Plate 6 : Plate_6
384 active wells / 1 classes.
Plate 7 : Plate_7
384 active wells / 1 classes.
Plate 8 : Plate_8
384 active wells / 1 classes.
Plate 9 : Plate_9
384 active wells / 1 classes.
Number of active descriptors: 2 (/ 2)
Descriptor 1 : Descriptor_0
Full Screen
Plate Format
Classification
Classification Tree
Quality Control
Correlation Matrix and Ranking
Systematic Errors Table
Z-Factors
siRNA screening
Pathway Analysis
Misc
Weka .Arff File
Export
Class selection
384
Current Descriptor
Descriptor_1
Descriptor List
Descriptor_0
Descriptor_1
HCS analyzer


fullScreen.csv - Microsoft Excel
Plate Name
Well Position Class Fluo1 Real_Size Volume
A01 0 0.02992 0.71625 -19.8866
B01 0 0.4584 0.92963 -20.3266
C01 0 0.65564 0.87556 -17.865
D01 0 0.53901 0.91971 -17.2936
E01 0 0.63164 0.78729 -19.1737
F01 0 0.58716 0.84612 -18.6867
G01 0 0.54701 0.8222 -18.8055
H01 0 0.33988 0.73788 -19.1102
I01 0 0.46348 0.81582 -17.0875
J01 0 0.53052 0.67329 -18.6184
K01 0 0.47085 0.62364 -17.7694
L01 0 0.706 0.89047 -17.6202
M01 0 0.71505 0.75757 -18.7137
N01 0 0.5127 0.81529 -20.4122
O01 0 0.60041 0.67228 -19.9777
P01 0 0.60873 0.75476 -21.4674
A02 2 0.22836 0.89736 89.9178
B02 2 0.81693 0.88011 98.4175
C02 2 0.82752 0.89015 102.984
D02 2 0.91943 0.96848 113.464
E02 2 0.89058 0.89667 97.7306
F02 2 0.87903 0.91334 114.419
G02 2 0.91953 0.93167 94.8581
H02 2 0.07824 0.92157 87.4028
I02 2 0.01228 0.91891 94.4448
J02 2 0.91486 0.97531 104.476
K02 2 0.88855 0.87667 94.6399
L02 2 0.90623 0.80376 122.265
M02 2 0.81945 0.91278 101.439
N02 2 0.90068 0.86945 97.9132
O02 2 0.88106 0.77963 90.7416
P02 2 0.64868 0.86253 94.9072
A03 1 0.16984 0.99619 -0.90501
B03 1 0.96458 0.99133 -6.16148
C03 1 0.9467 0.98269 5.12075
D03 1 0.96933 0.973 4.42502
E03 1 0.99751 0.99085 2.76436
F03 1 0.99342 0.97485 0.55692
fullScreen


Databases ▸ export
Search export
Organize
Include in library
Share with
Burn
Name
Type
Size
Correlation_Matrix.emf EMF File 10 KB
fullScreen.csv Microsoft Excel Comma Separated Values File 224 KB
SRP000438.csv Microsoft Excel Comma Separated Values File 15 KB
SRP000439.csv Microsoft Excel Comma Separated Values File 15 KB
SRP000440.csv Microsoft Excel Comma Separated Values File 15 KB
SRP000441.csv Microsoft Excel Comma Separated Values File 15 KB
SRP000442.csv Microsoft Excel Comma Separated Values File 15 KB
SRP000443.csv Microsoft Excel Comma Separated Values File 15 KB
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SRP000447.csv Microsoft Excel Comma Separated Values File 15 KB
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SRP000449.csv Microsoft Excel Comma Separated Values File 14 KB
SystematicErrorReport.csv Microsoft Excel Comma Separated Values File 1 KB
Correlation_Ranking.png PNG image 10 KB
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SRP000440.png PNG image 40 KB
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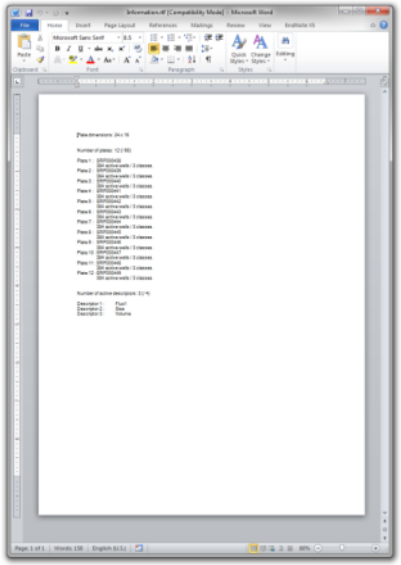
SRP000446.png PNG image 40 KB
SRP000447.png PNG image 40 KB
SRP000448.png PNG image 40 KB
SRP000449.png PNG image 40 KB
Information.rtf Rich Text Format
ZFactors.rtf Rich Text Format 3,696 KB
30 items



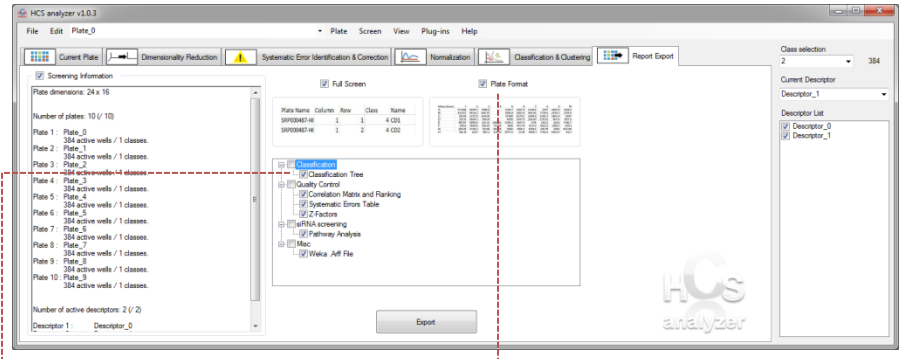

HCS analyzer v1.0.3
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Plate 10 : Plate_9
384 active wells / 1 classes.
Number of active descriptors: 2 (/ 2)
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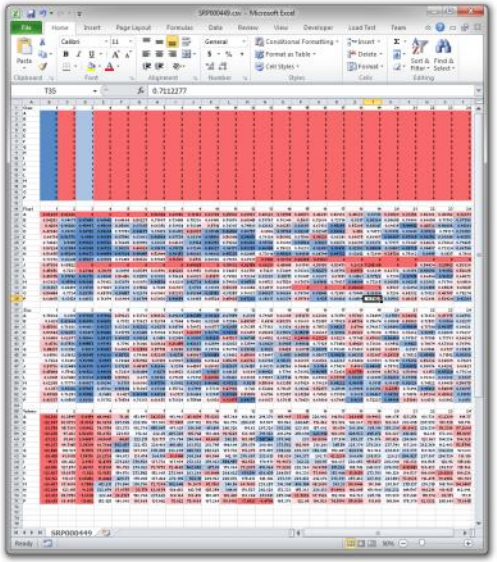
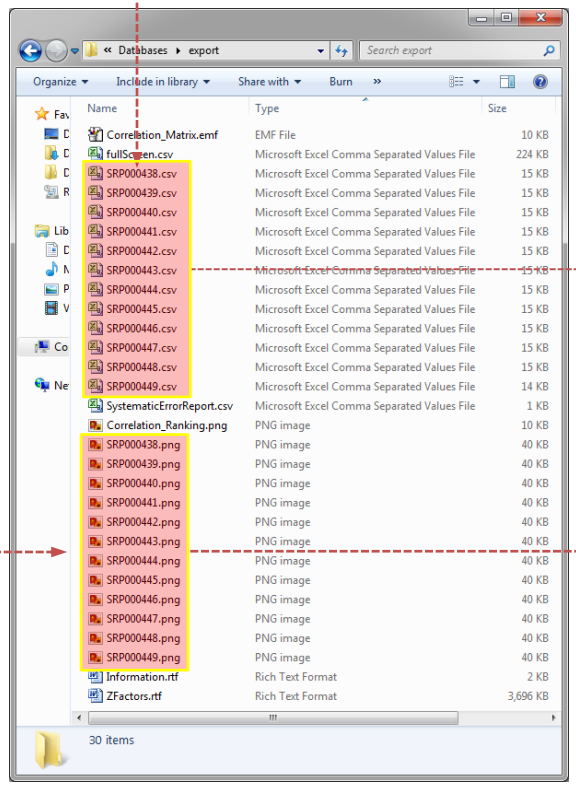
siRNA screening
Pathway Analysis
Misc
Weka .Arff File
Export
Class selection
Current Descriptor
Descriptor_1
Descriptor List
Descriptor_0
Descriptor_1
HCS analyzer




Databases ▸ export
Search export
Organize
Include in library
Share with
Burn
Name
Type
Size
Correlation_Matrix.emf EMF File 10 KB
fullScreen.csv Microsoft Excel Comma Separated Values File 224 KB
SRP000438.csv Microsoft Excel Comma Separated Values File 15 KB
SRP000439.csv Microsoft Excel Comma Separated Values File 15 KB
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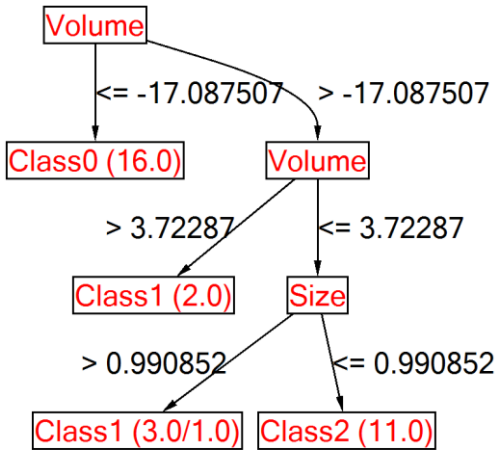
SRP000448.png PNG image 40 KB
SRP000449.png PNG image 40 KB
Information.rtf Rich Text Format 2 KB
ZFactors.rtf Rich Text Format 3,696 KB
30 items


Volume
<= -17.087507
> -17.087507
Class0 (16.0)
Volume
> 3.72287
<= 3.72287
Class1 (2.0)
Size
> 0.990852
<= 0.990852
Class1 (3.0/1.0)
Class2 (11.0)

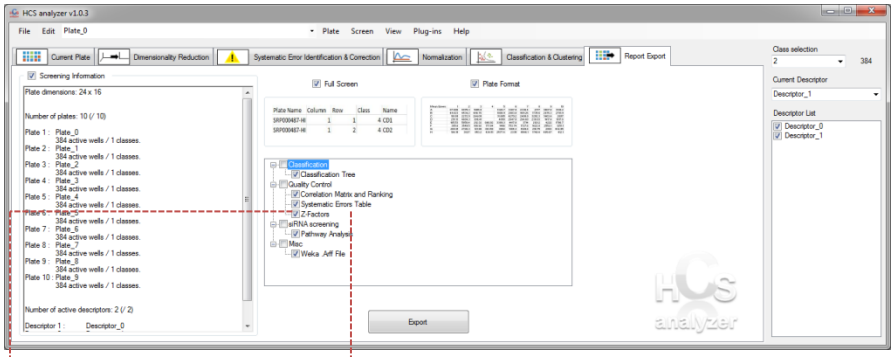

HCS analyzer v1.0.3
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Plate 10 : Plate_9
Number of active descriptors: 2 (/ 2)
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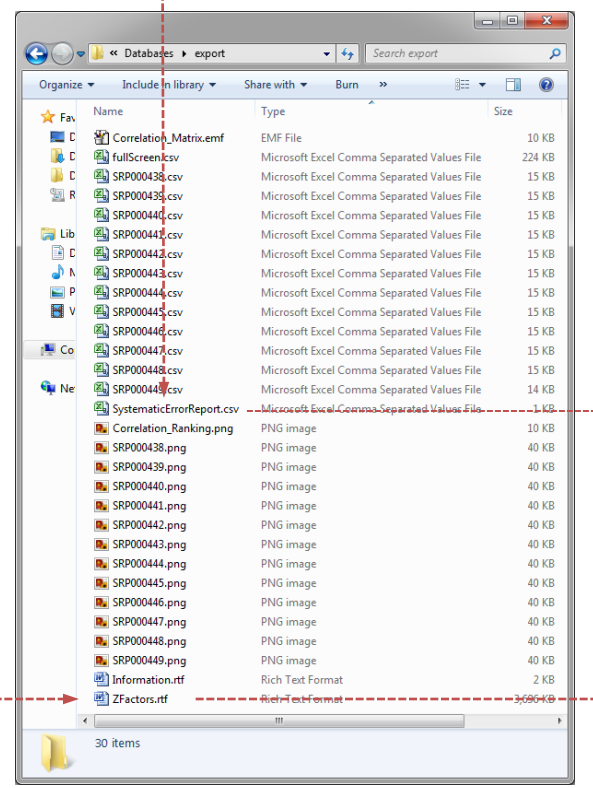
Descriptor_1
HCS analyzer


Databases ▸ export
Search export
Organize
Include in library
Share with
Burn
Name
Type
Size
Correlation_Matrix.emf EMF File 10 KB
fullScreen.csv Microsoft Excel Comma Separated Values File 224 KB
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Correlation_Ranking.png PNG image 10 KB
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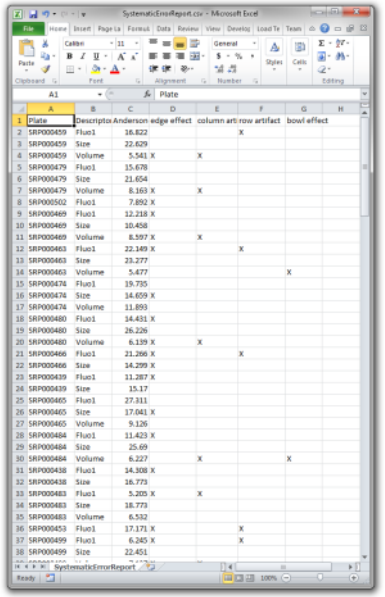
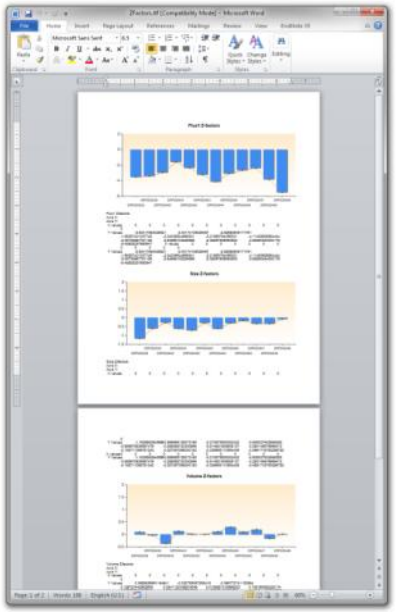
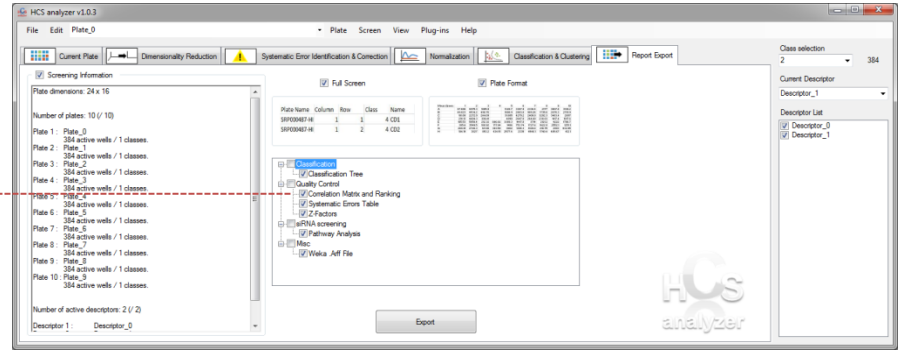
30 items


SystematicErrorReport.csv - Microsoft Excel
Plate
Descriptor_0 Anderson-edge effect column artifact row artifact bowl effect
SRP000459 Fluo1 16.822 X
SRP000459 Size 22.629
SRP000459 Volume 5.541 X X
SRP000479 Fluo1 15.678
SRP000479 Size 21.654
SRP000479 Volume 8.163 X X
SRP000502 Fluo1 7.892 X
SRP000469 Fluo1 12.218 X
SRP000469 Size 10.458
SRP000469 Volume 8.597 X X
SRP000463 Fluo1 22.149 X X
SRP000463 Size 23.277
SRP000463 Volume 5.477 X
SRP000474 Fluo1 19.735
SRP000474 Size 14.659 X
SRP000474 Volume 11.893
SRP000480 Fluo1 14.431 X
SRP000480 Size 26.226
SRP000480 Volume 6.139 X X
SRP000466 Fluo1 21.266 X X
SRP000466 Size 14.299 X
SRP000439 Fluo1 11.287 X
SRP000439 Size 15.17
SRP000465 Fluo1 27.311
SRP000465 Size 17.041 X
SRP000465 Volume 9.126
SRP000484 Fluo1 11.423 X
SRP000484 Size 25.69
SRP000484 Volume 6.227 X X
SRP000438 Fluo1 14.308 X
SRP000438 Size 16.773
SRP000483 Fluo1 5.205 X X
SRP000483 Size 18.773
SRP000483 Volume 6.532
SRP000453 Fluo1 17.171 X X
SRP000499 Fluo1 6.245 X X
SRP000499 Size 22.451
SystematicErrorReport


ZFactors.rtf [Compatibility Mode] - Microsoft Word


HCS analyzer v1.0.3
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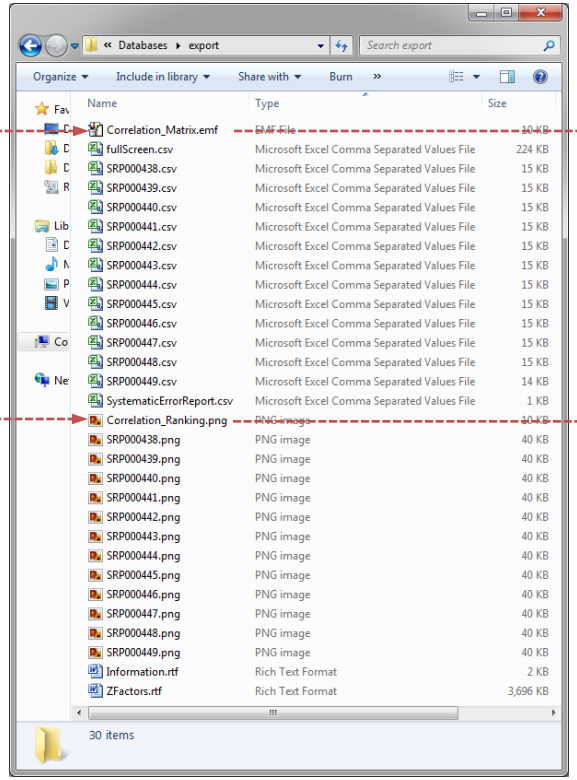
HCS analyzer


Databases ▸ export
Search export
Organize
Include in library
Share with
Burn
Name
Type
Size
Correlation_Matrix.emf
EMF File
10 KB
fullScreen.csv
Microsoft Excel Comma Separated Values File
224 KB
SRP000438.csv
SRP000439.csv
SRP000440.csv
SRP000441.csv
SRP000442.csv
SRP000443.csv
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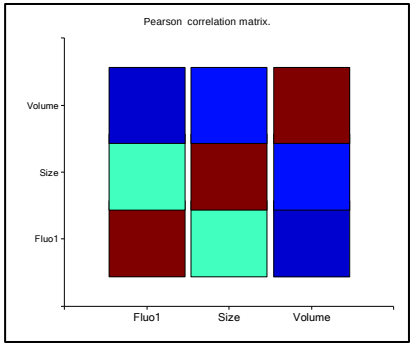
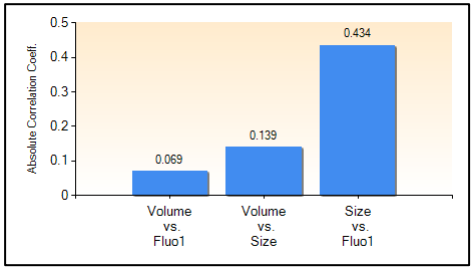
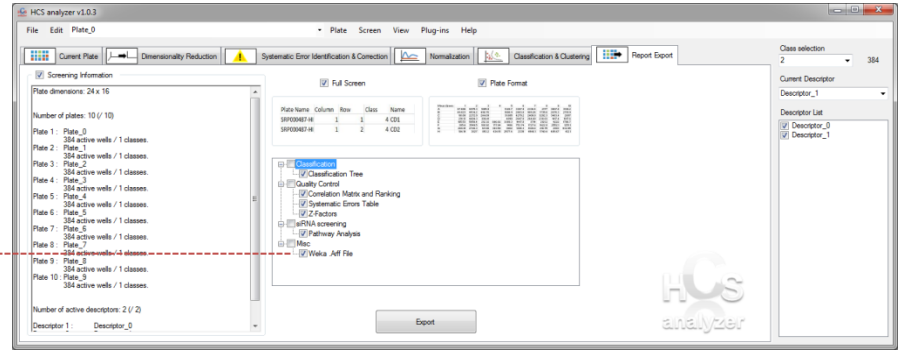
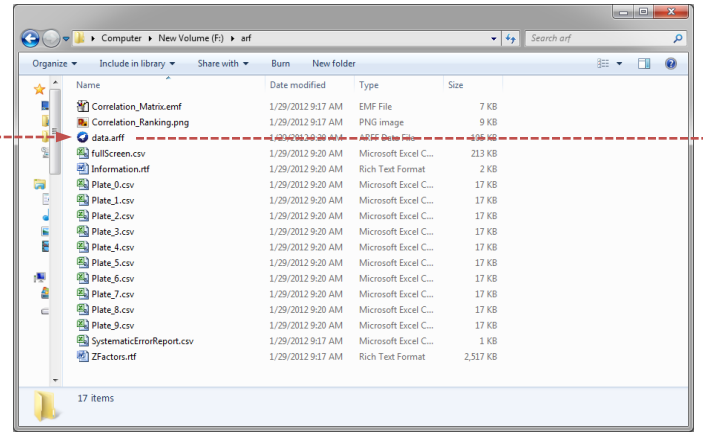
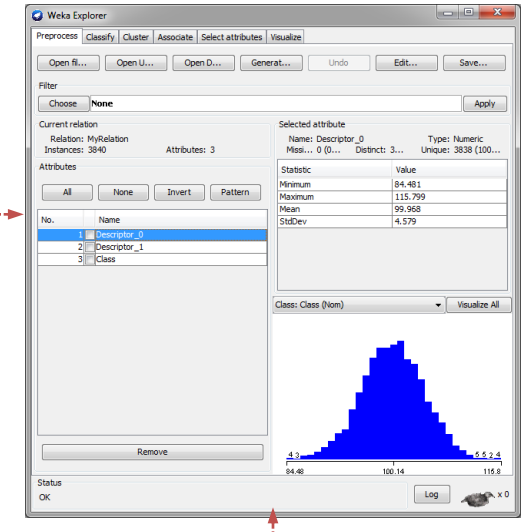
SRP000445.csv
SRP000446.csv
SRP000447.csv
SRP000448.csv
SRP000449.csv
15 KB
SystematicErrorReport.csv
1 KB
Correlation_Ranking.png
PNG image
40 KB
Information.rtf
Rich Text Format
2 KB
ZFactors.rtf
3,696 KB
30 items


Pearson correlation matrix.
Volume
Size
Fluo1
Fluo1
Size
Volume

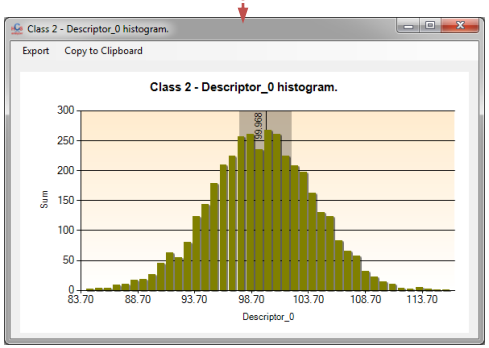

Absolute Correlation Coeff.
0.5
0.4
0.3
0.2
0.1
0
0.069
0.139
0.434
Volume vs. Fluo1
Volume vs. Size
Size vs. Fluo1





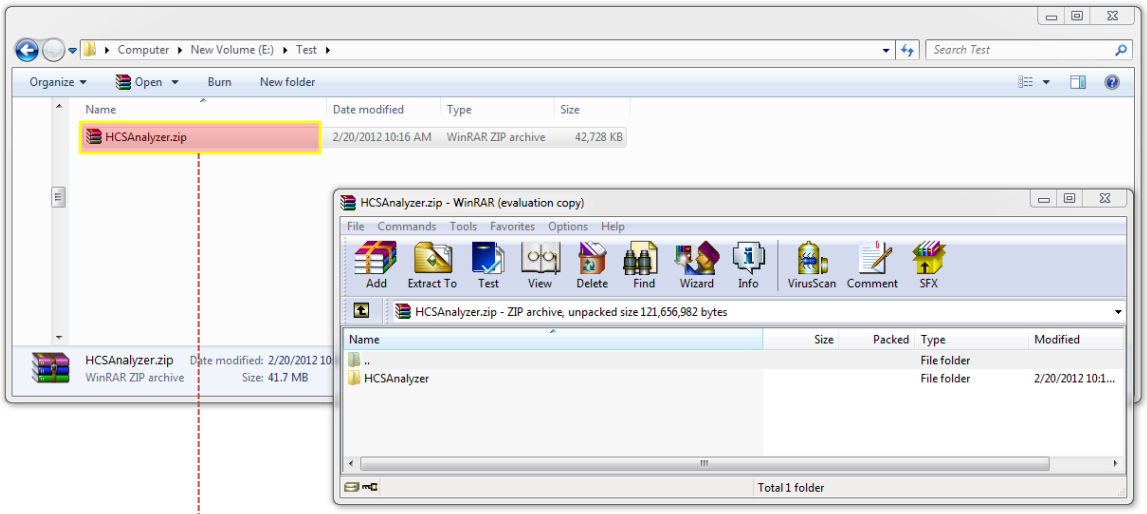


Weka

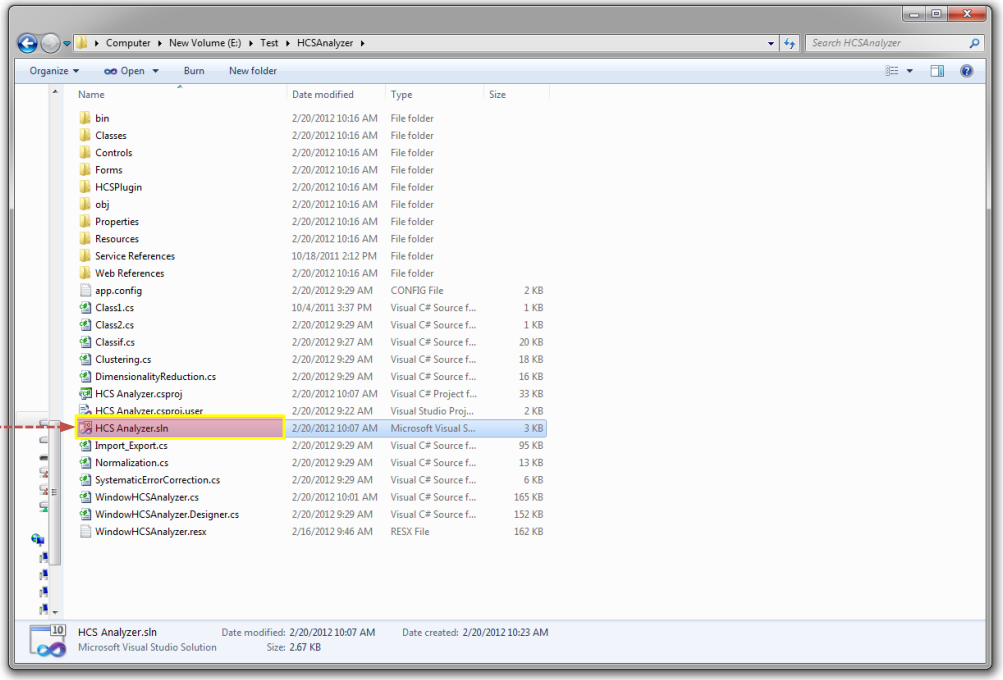


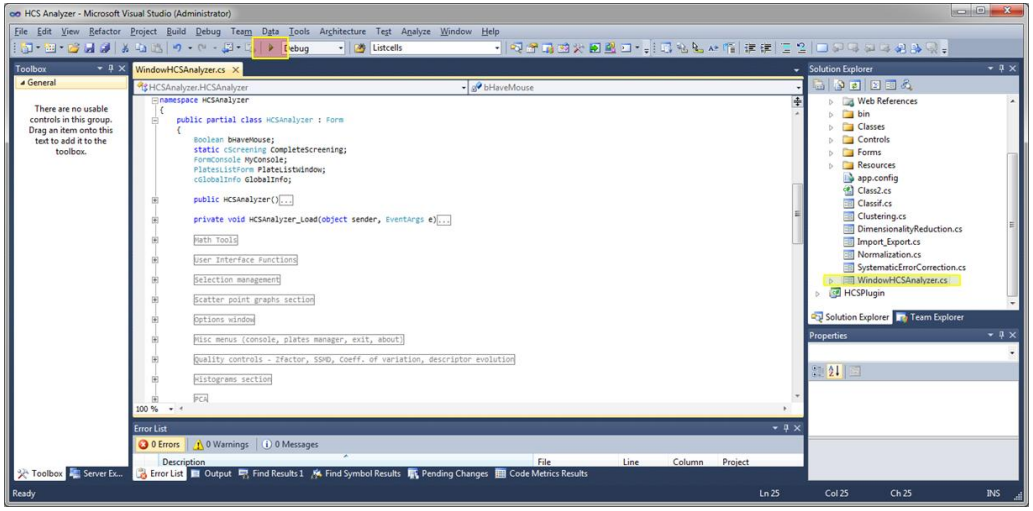
HCS Analyzer

Core Development



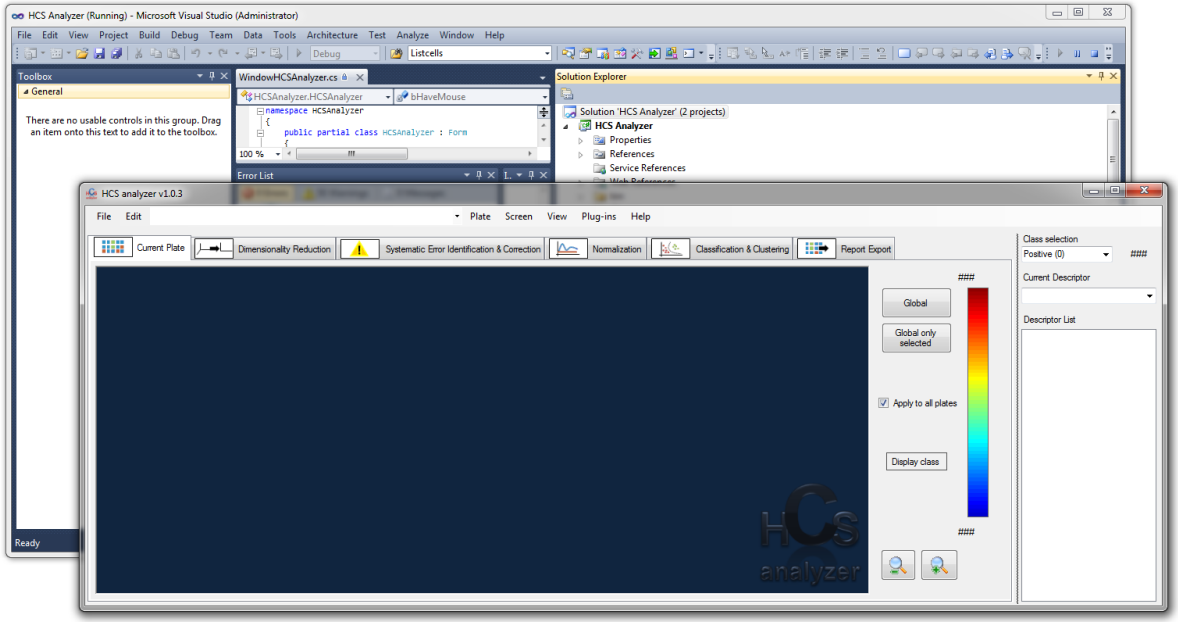
Unpack and launch the solution



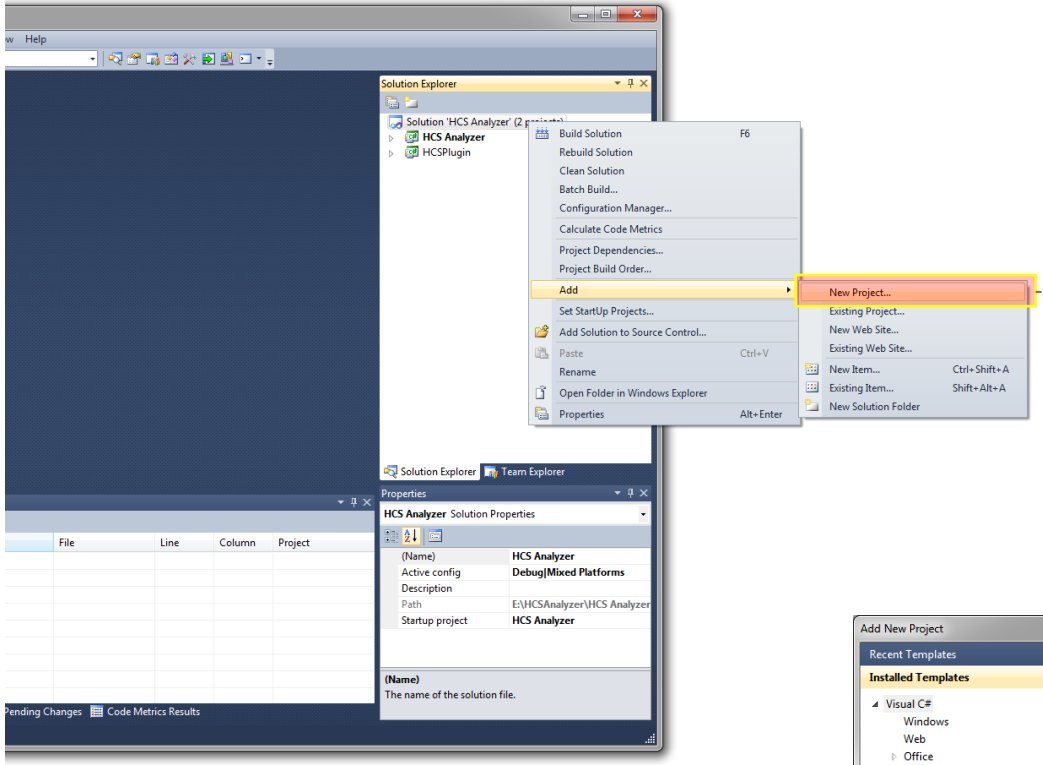


Look, develop, modify, debug, test

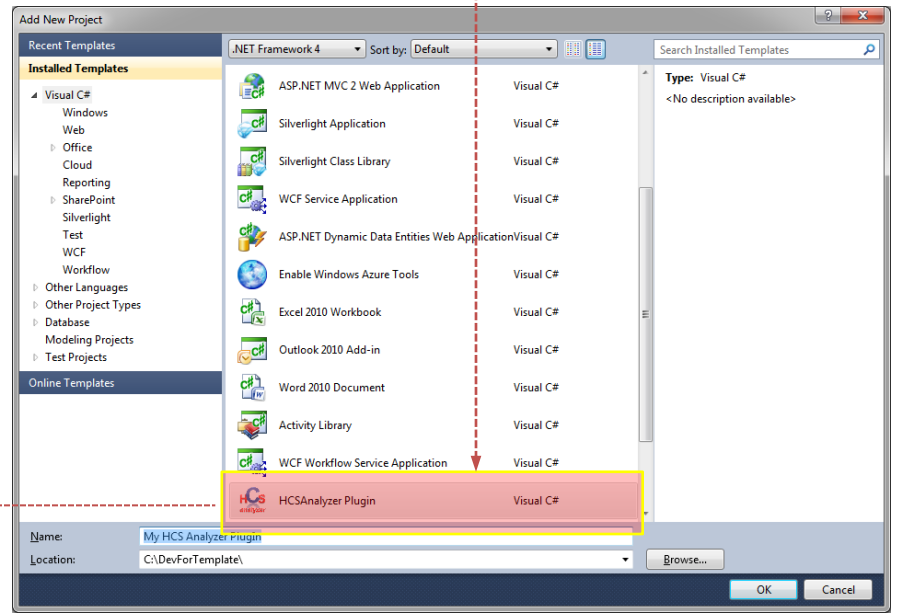
Launch and have fun



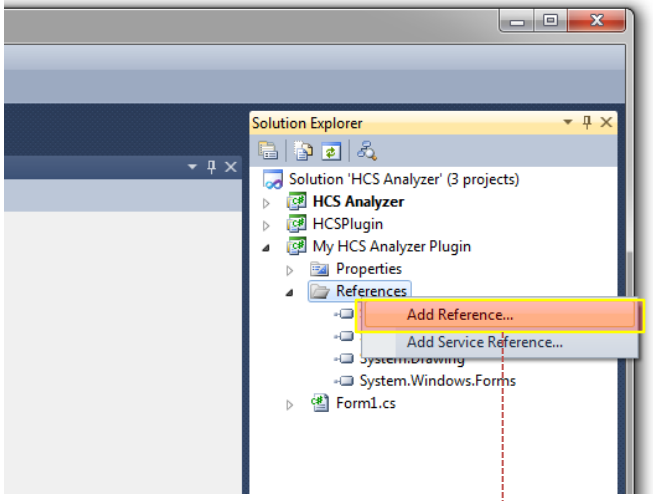
Plugins Development

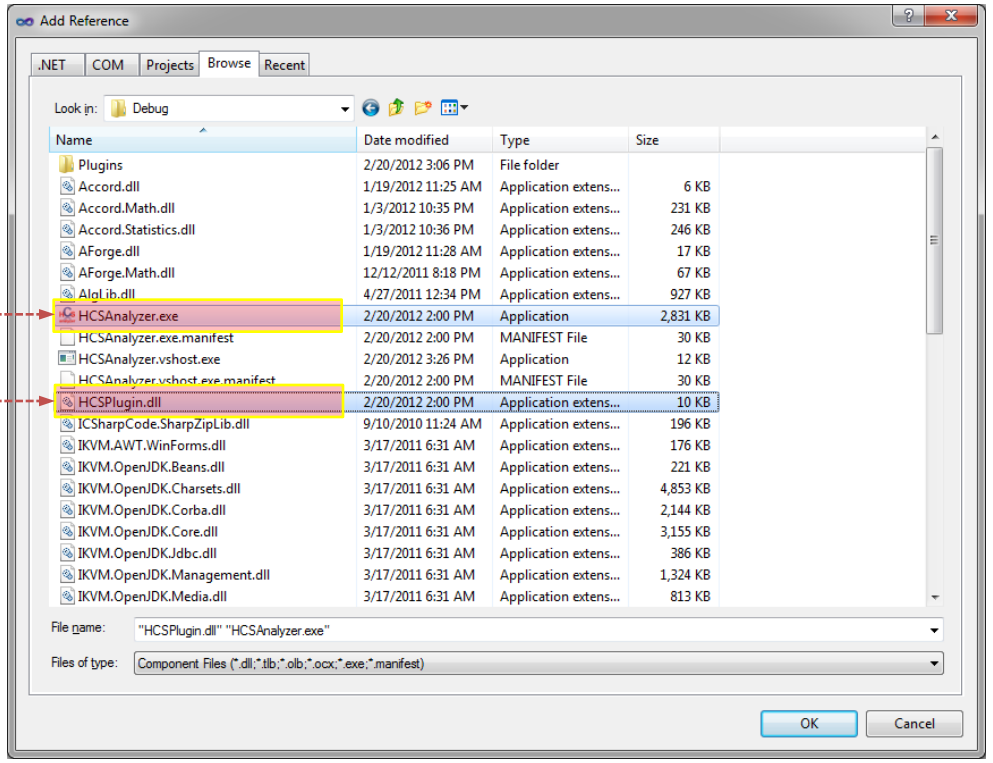


Add a new HCSAnalyzer Plugin project within the global solution

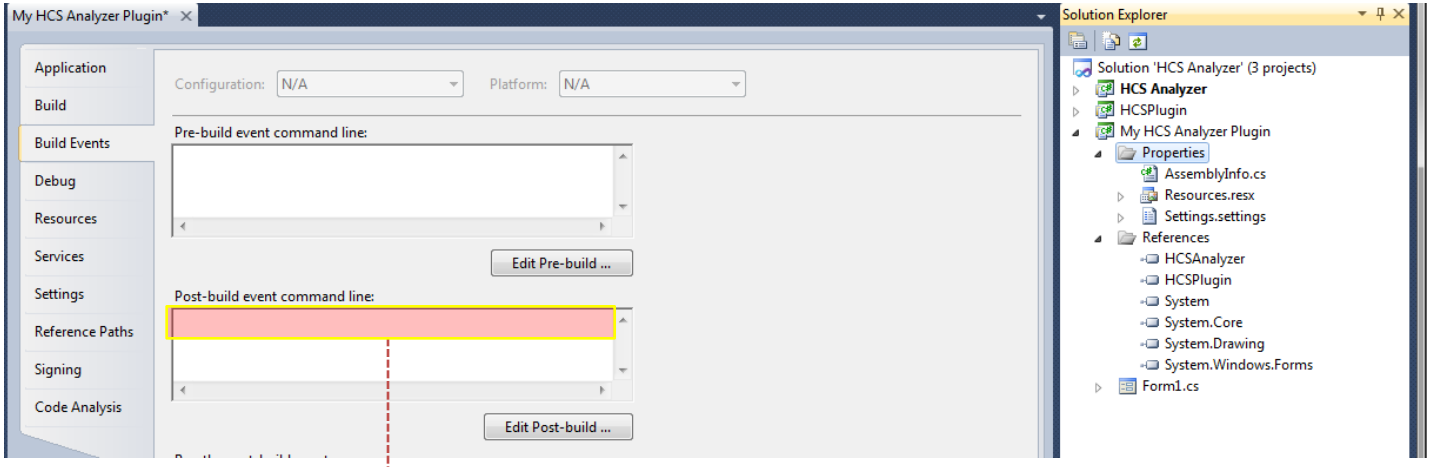


Note: this template is available on our website, and has to be copied in your dedicated visual studio directory

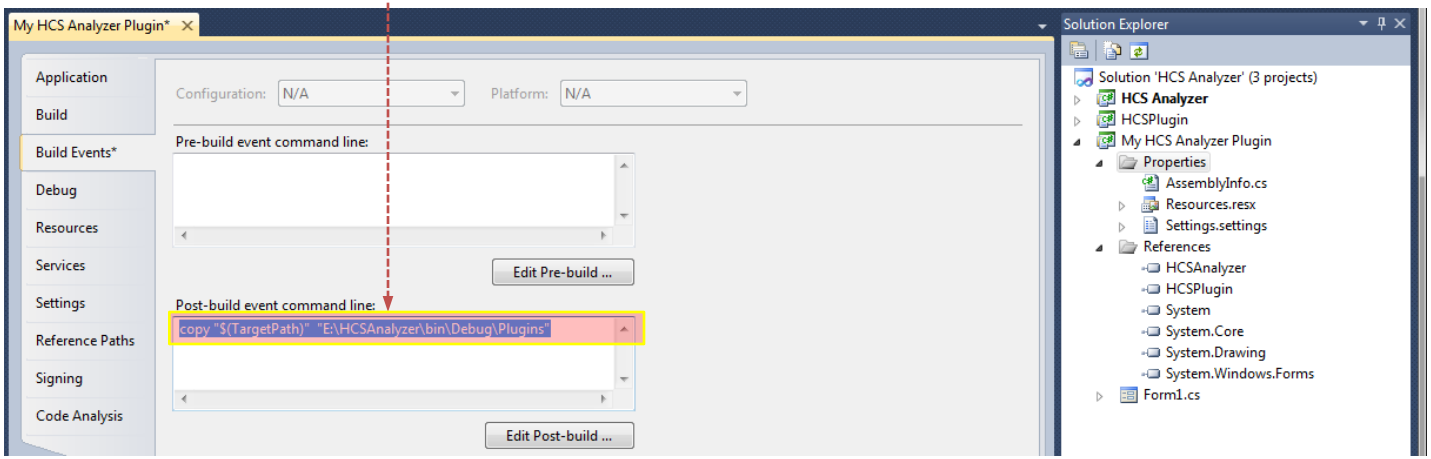


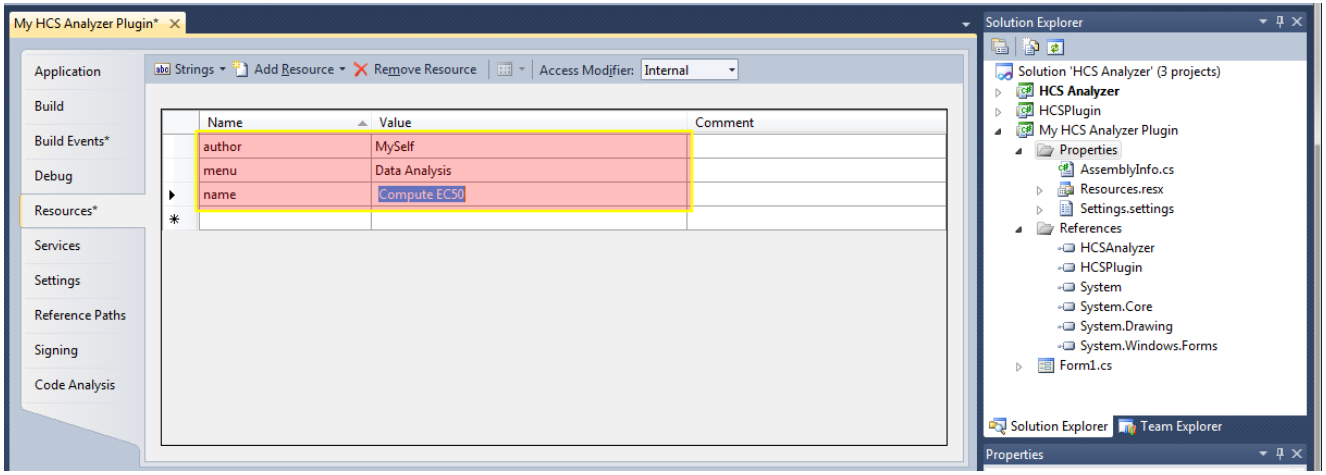


Add the two following references to your project

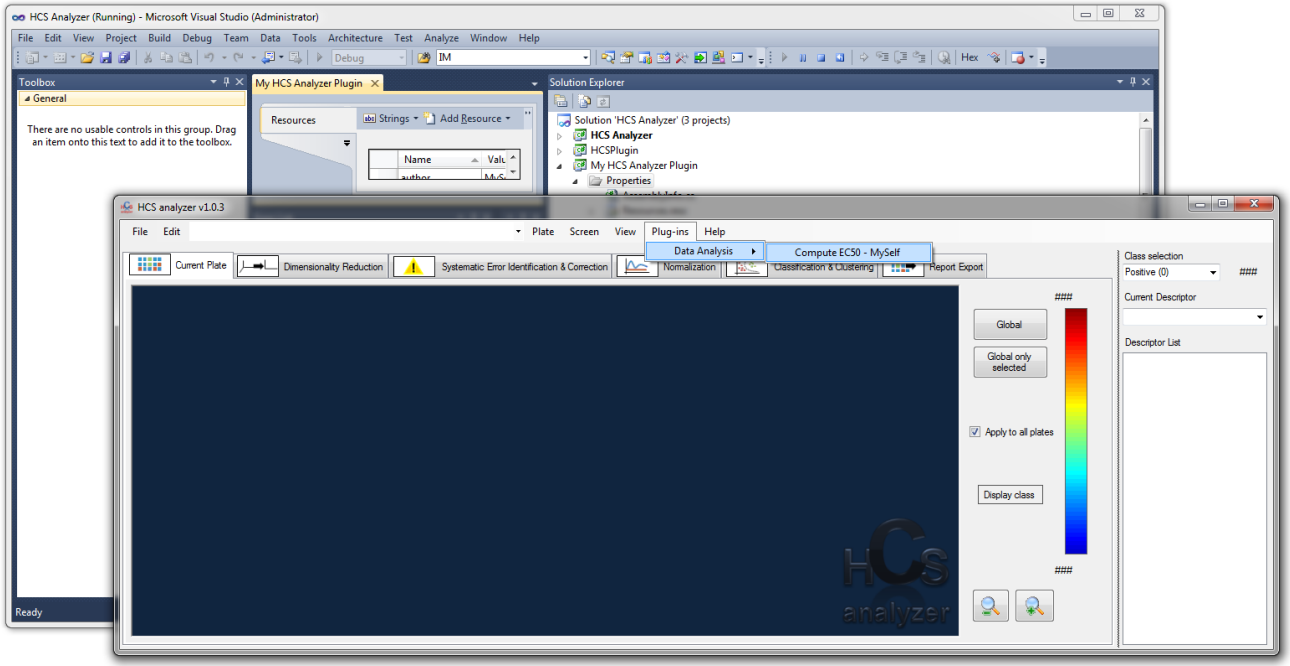


Add your HCS Analyzer plugins directory in the
Post-build event command line





Add information about your plugin (menu, etc.)



Develop your plugin and do not forget to share it