







```
1 "att1";"att2";"label"  
2 "value1";"value1";"negative"  
3 "value1";"value1";"negative"  
4 "value1";"value1";"negative"  
5 "value0";"value1";"positive"  
6 "value0";"value1";"positive"  
7 "value0";"value0";"positive"  
8 "value0";"value0";"positive"  
9 "value1";"value0";"positive"
```

ExampleSet (Read CSV)  

ExampleSet (101 examples, 0 special attributes, 3 regular

Row No.	att1	att2	label
1	value1	value1	negative
2	value1	value1	negative
3	value1	value1	negative
4	value0	value1	positive
5	value0	value1	positive
6	value0	value0	positive
7	value0	value0	positive
8	value1	value0	positive
9	value1	value0	positive
10	value2	value2	negative
11	value0	value0	positive

Navigation sidebar:

- Data 
- Statistics 
- Charts 
- Advanced Charts 

Data import wizard - Step 4 of 4

This wizard guides you to import your data.  
**Step 4:** RapidMiner Studio uses strongly typed attributes. In this step, you can define the data types of your attributes. Furthermore, RapidMiner Studio assigns roles to the attributes.

Uncheck preview 100 and press "Guess" to refresh

Reload data Guess value types Preview uses only first 100 rows. Date format

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
att1	att2	label
polyno...	polyno...	binomi...
attribute	attribute	attribute
value1	value0	?

Check this to see errors only

1 errors. Ignore errors Show only errors

Row, Column	Error	Original value	Message
102, 3	more than two values for...	zero	Cannot map another stri...


Error highlighted at row 101, attribute 3

Previous Next Finish Cancel





```
XML
```

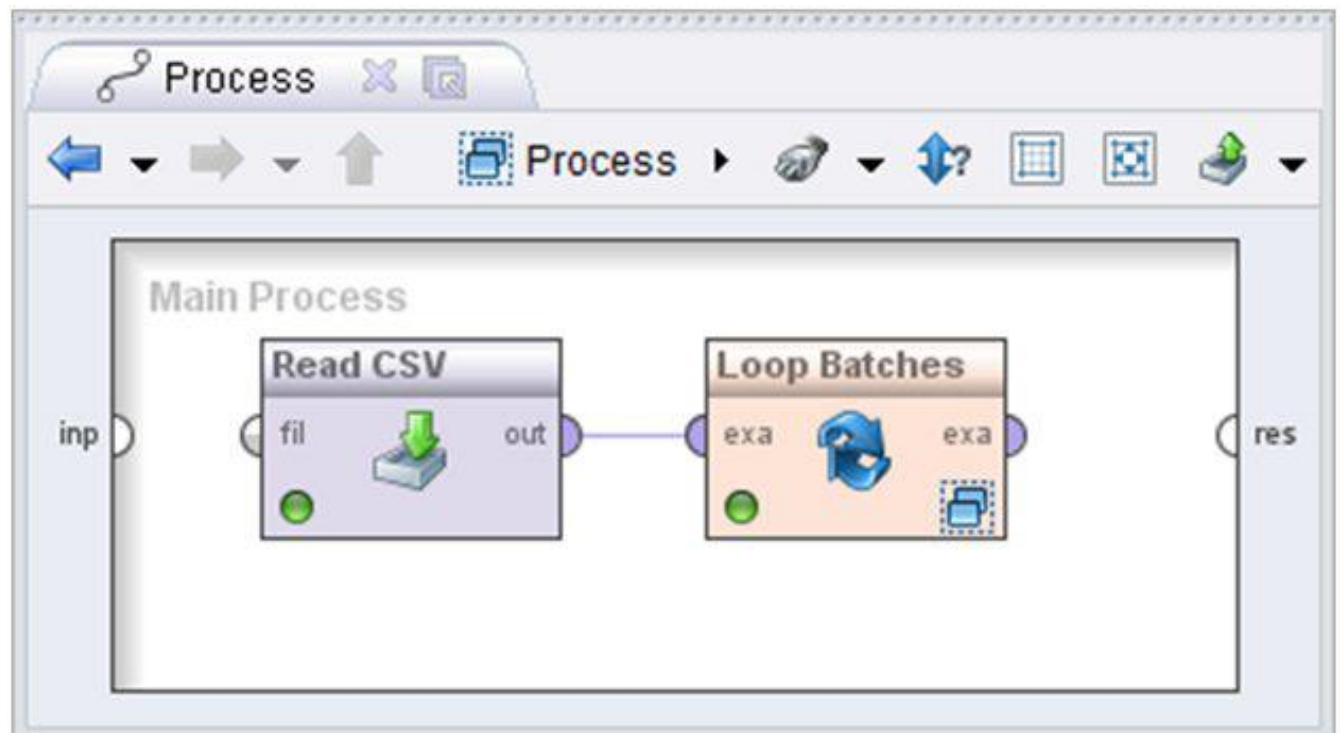
```
23 <parameter key="0" value="polyNominalLabel.true.polynomial.label"/>
24 <parameter key="1" value="aRealAttribute.true.real.attribute"/>
25 <parameter key="2" value="notSelected.false.real.attribute"/>
26 <parameter key="3" value="id.true.numeric.id"/>
```

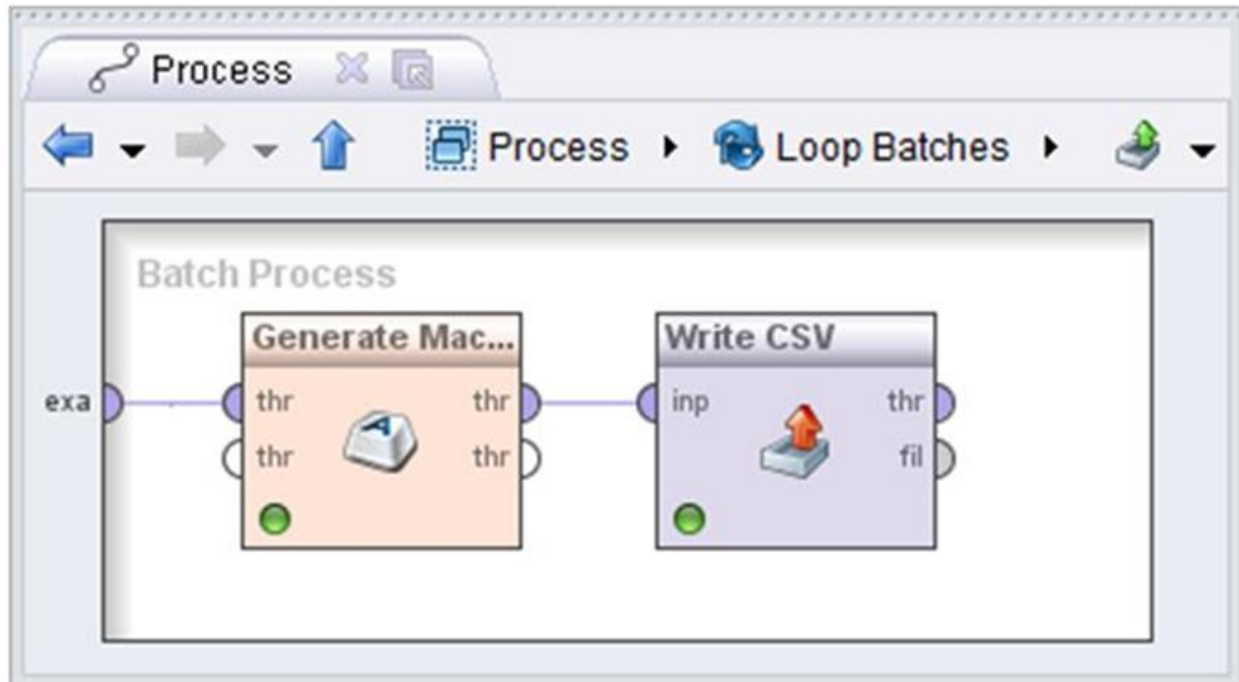
**Edit Parameter List: data set meta data information** ✕

 Edit Parameter List: **data set meta data information**  
The meta data information

column index			attribute meta data information	
0	polyNominalLabel	<input checked="" type="checkbox"/> <i>column selected</i>	polynomial	label
1	aRealAttribute	<input checked="" type="checkbox"/> <i>column selected</i>	real	attribute
2	notSelected	<input type="checkbox"/> <i>column selected</i>	real	attribute
3	id	<input checked="" type="checkbox"/> <i>column selected</i>	numeric	id

 Add Entry
 Remove Entry
 Apply
 Cancel





line	file	source	length
This is a line	file42.txt	Desktop1	14
This is some other line	file42.txt	Desktop1	23
A short line	file43.txt	Desktop1	12
A very long ... Line	file101.txt	Desktop2	121

### Edit Parameter List: parameters

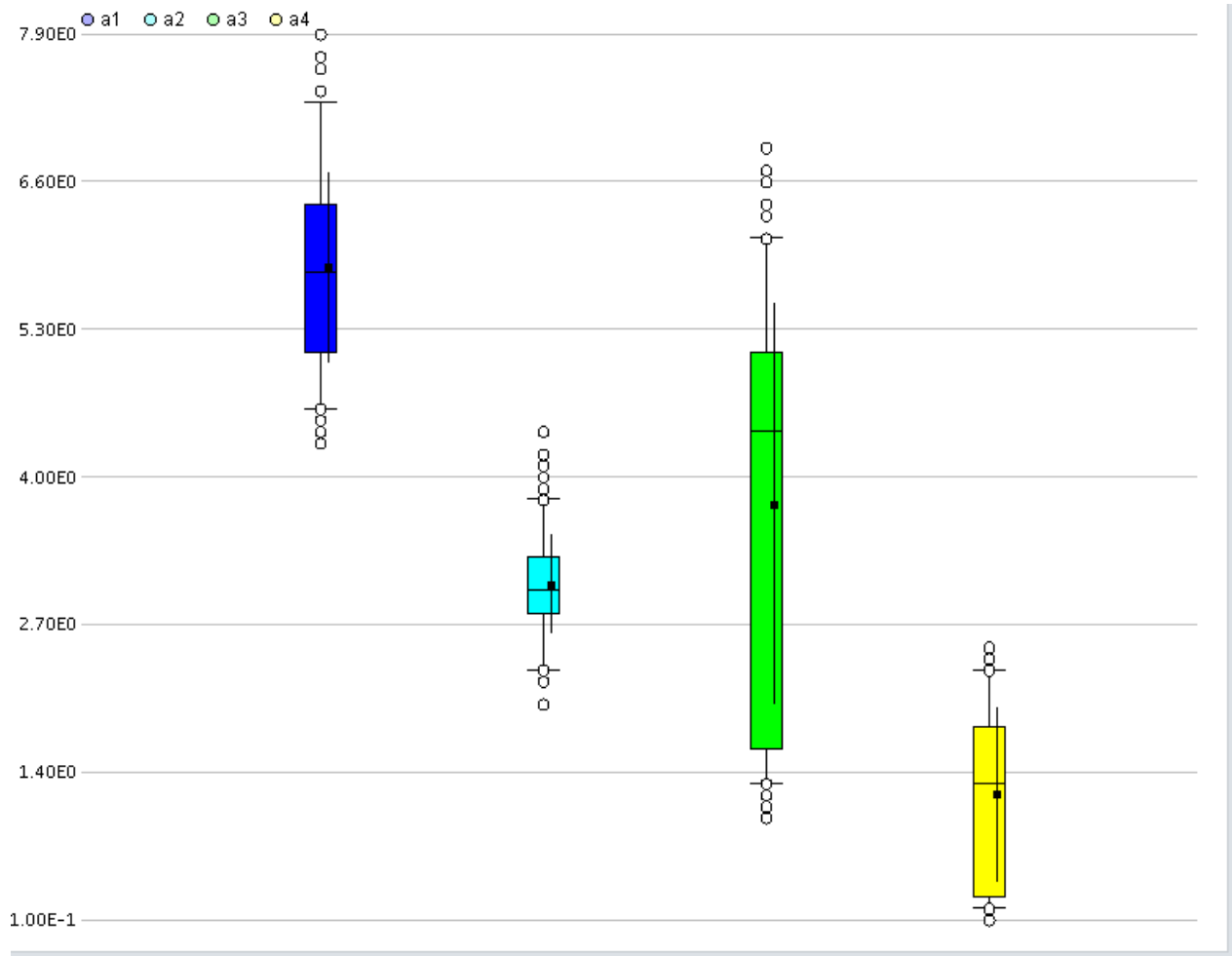
Edit Parameter List: **parameters**  
Parameters to insert into '?' placeholders when statement is prepared.

parameter	
VARCHAR	%{length}
VARCHAR	%{source}

ExampleSet (Retrieve Iris)

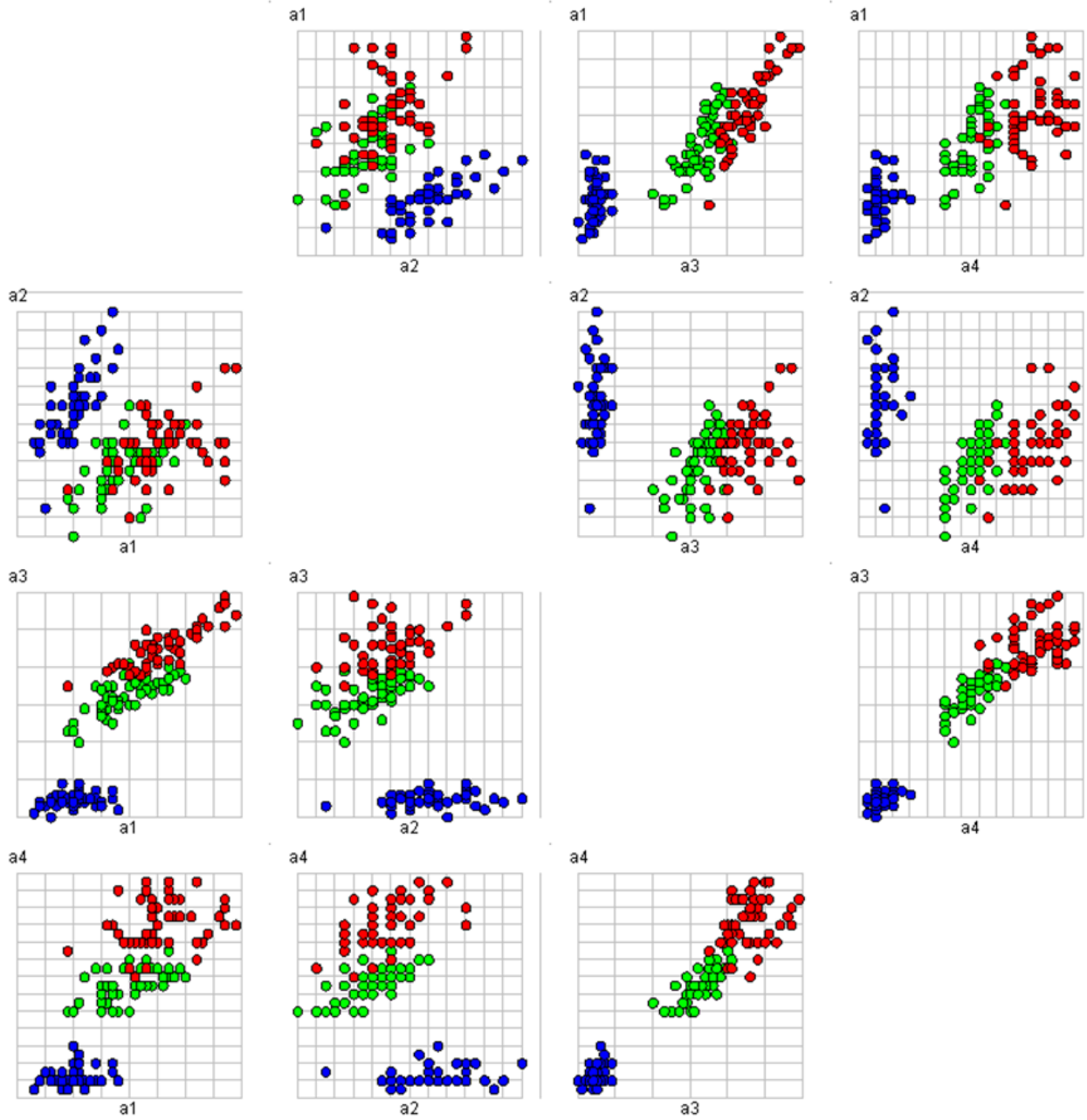
Name	Type	Miss.	Statistics		Filter (6 / 6 attributes):
<b>id</b>	Nominal	0	Least id_99 (1)	Most id_1 (1)	Values id_1 (1), id_10 (1), ...[148 more]
<b>label</b>	Nominal	0	Least Iris-virginica (50)	Most Iris-setosa (50)	Values Iris-setosa (50), Iris-versicolor (50), ...
<b>a1</b>	Real	0	Min 4.300	Max 7.900	Average 5.843 Deviation 0.828
<b>a2</b>	Real	0	Min 2	Max 4.400	Average 3.054 Deviation 0.434
<b>a3</b>	Real	0	Min 1	Max 6.900	Average 3.759 Deviation 1.764
<b>a4</b>	Real	0	Min 0.100	Max 2.500	Average 1.199 Deviation 0.763

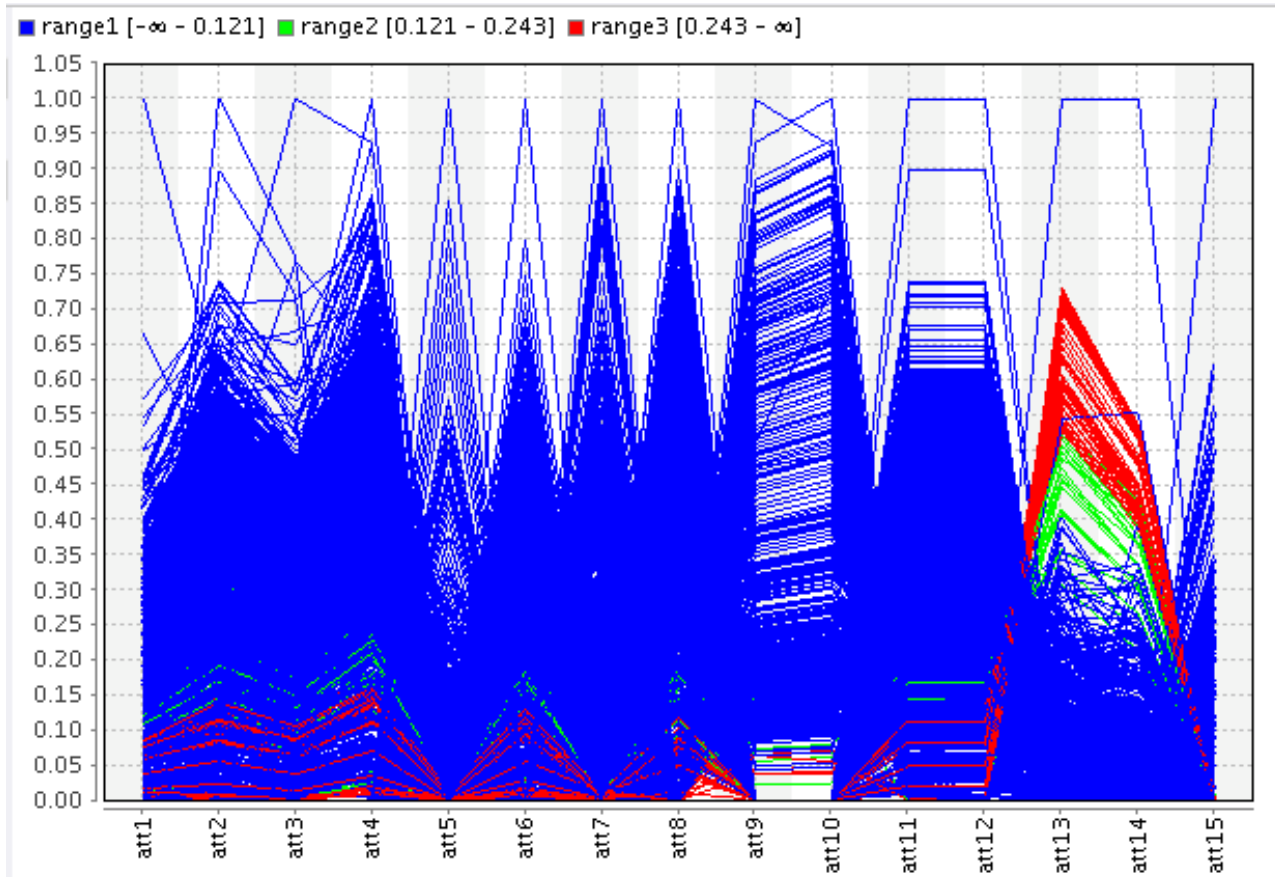
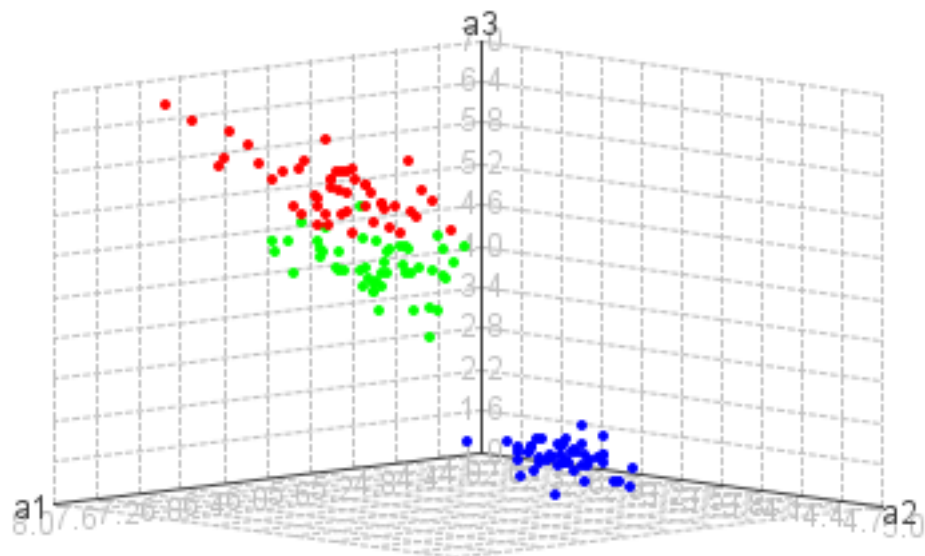
Showing attributes: 1 - 6      Examples: 150    Special Attributes: 2    Regular Attributes: 4



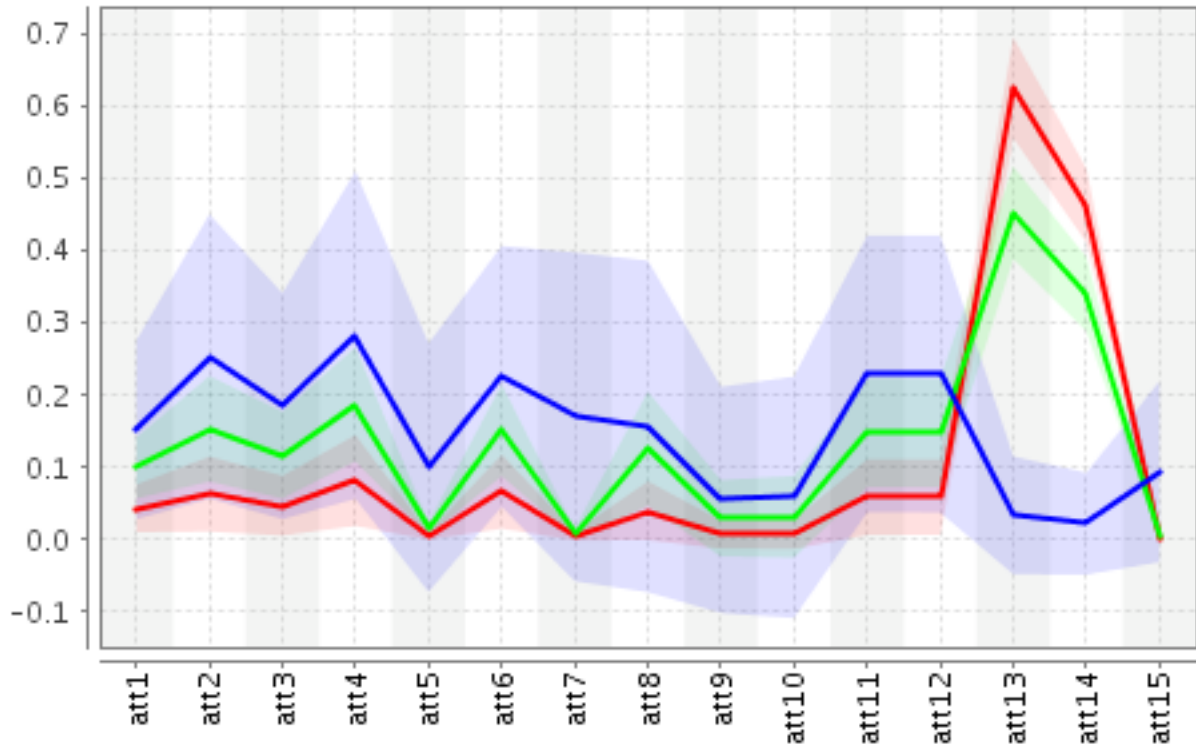


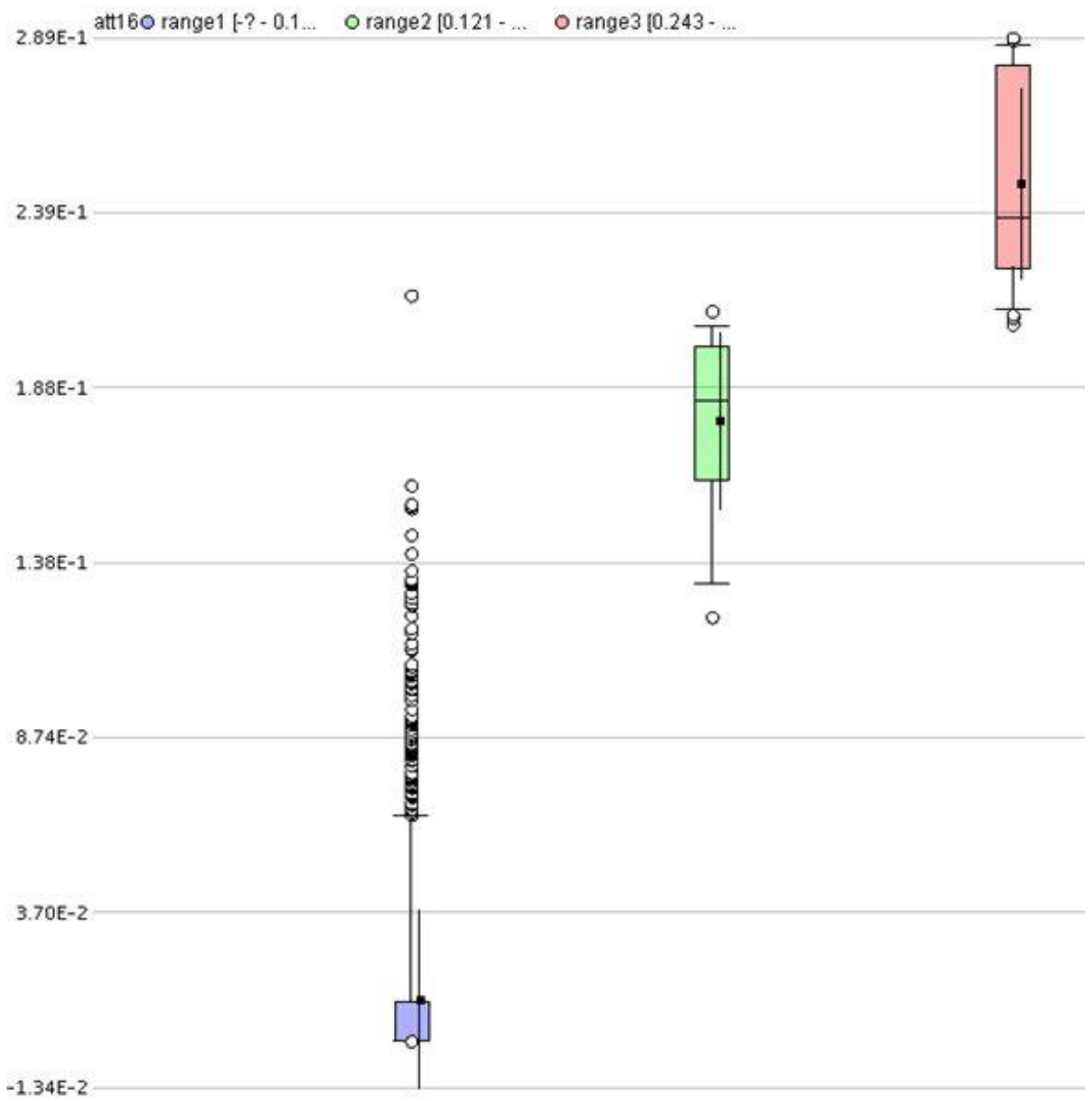
label ● Iris-setosa ● Iris-versicolor ● Iris-virginica



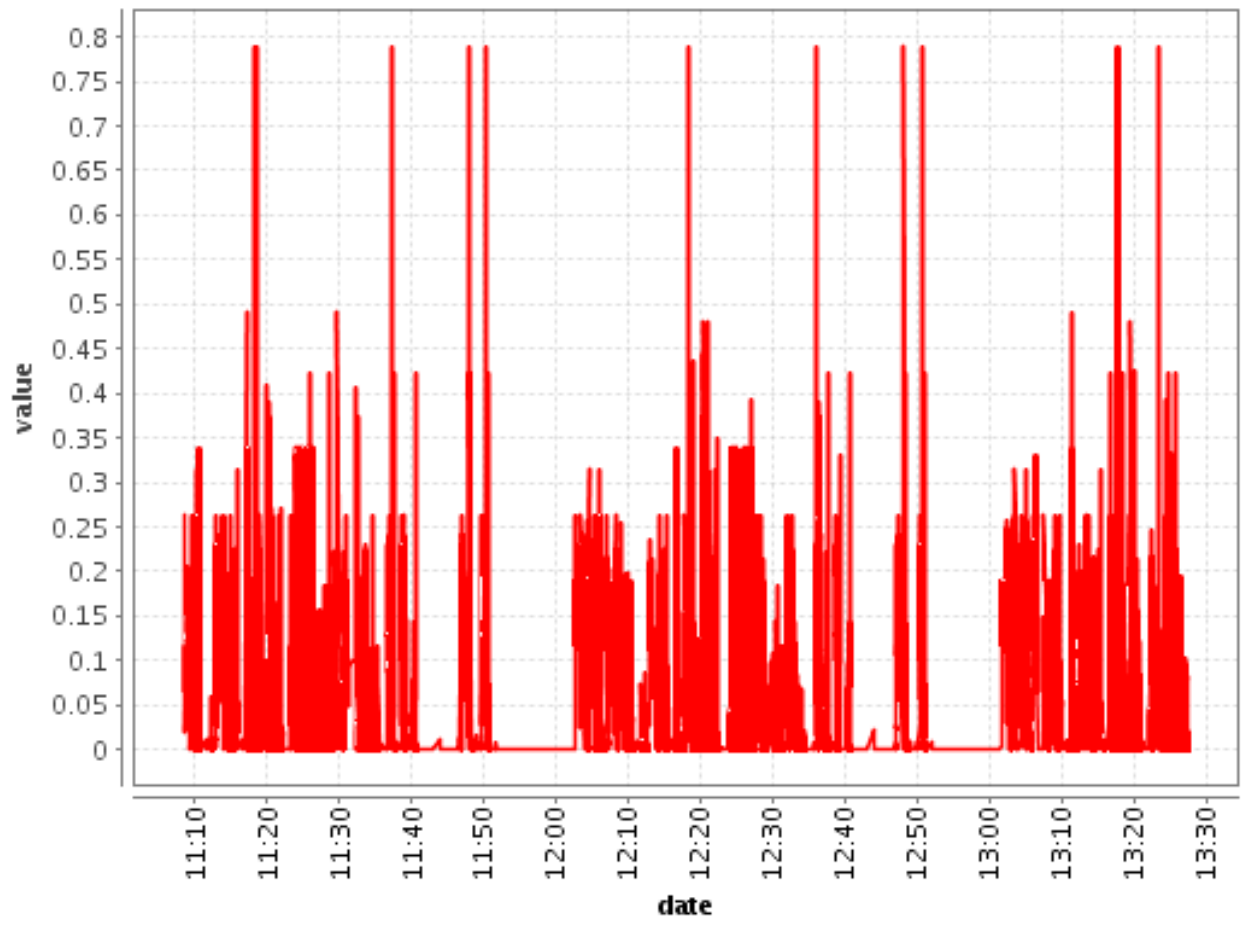


range1  $[-\infty - 0.121]$  range2  $[0.121 - 0.243]$  range3  $[0.243 - \infty]$

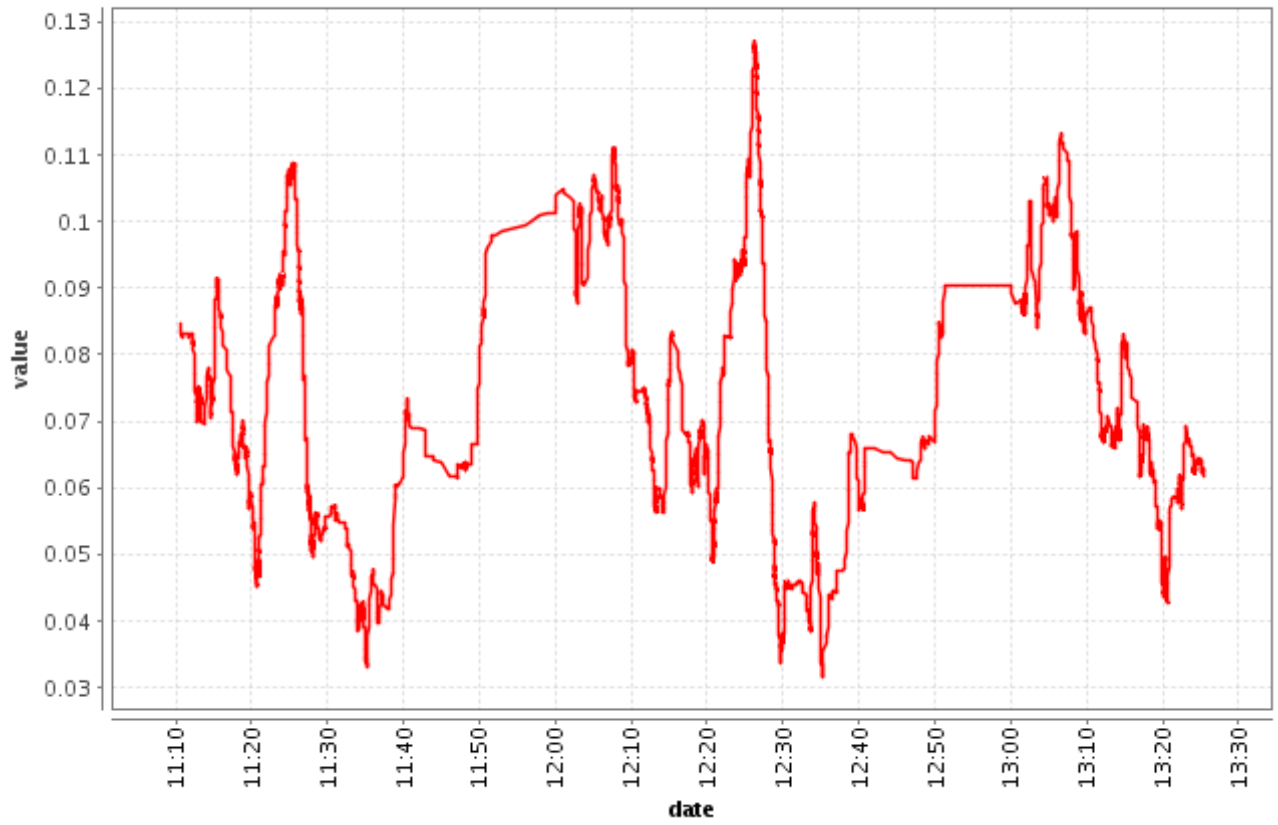


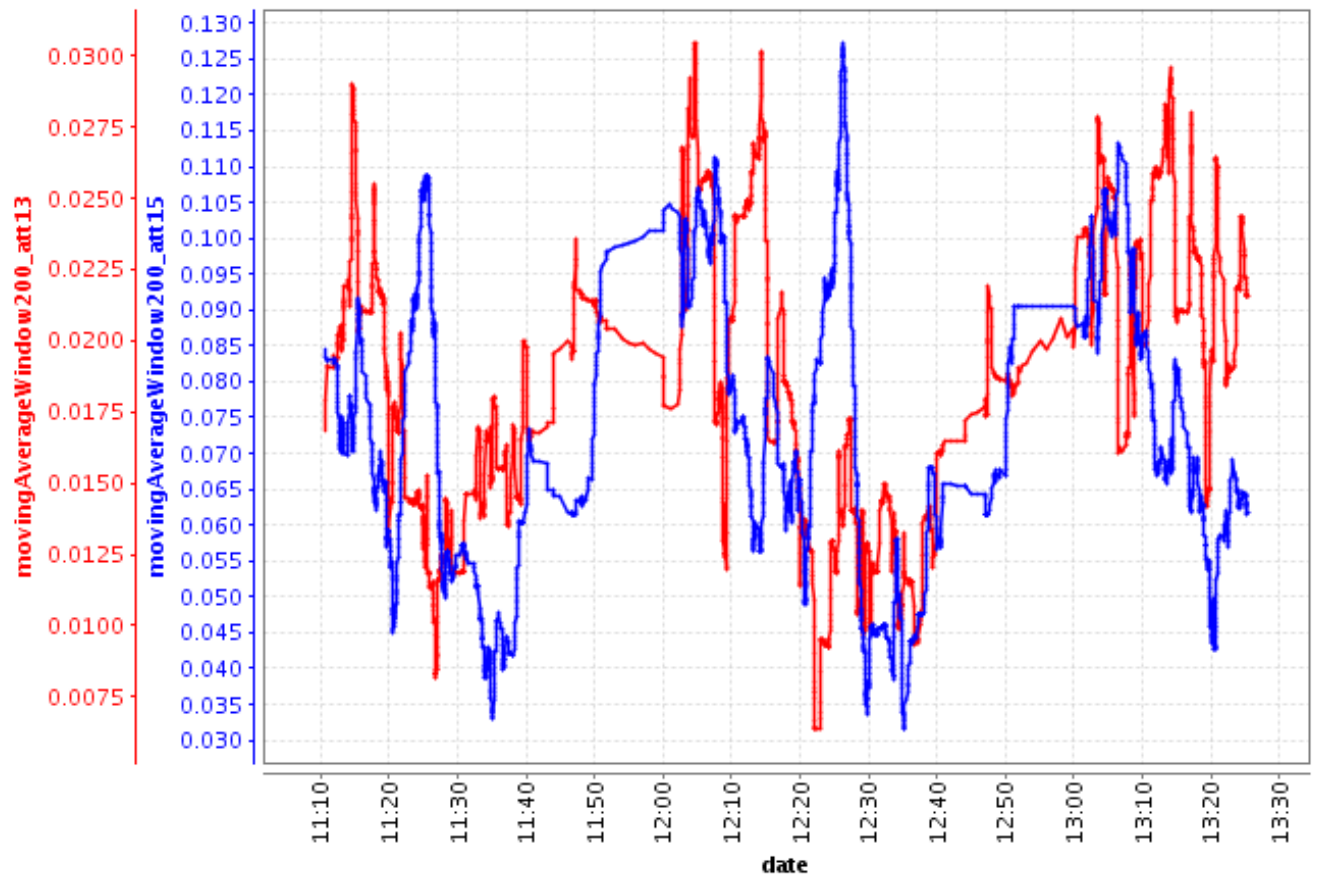


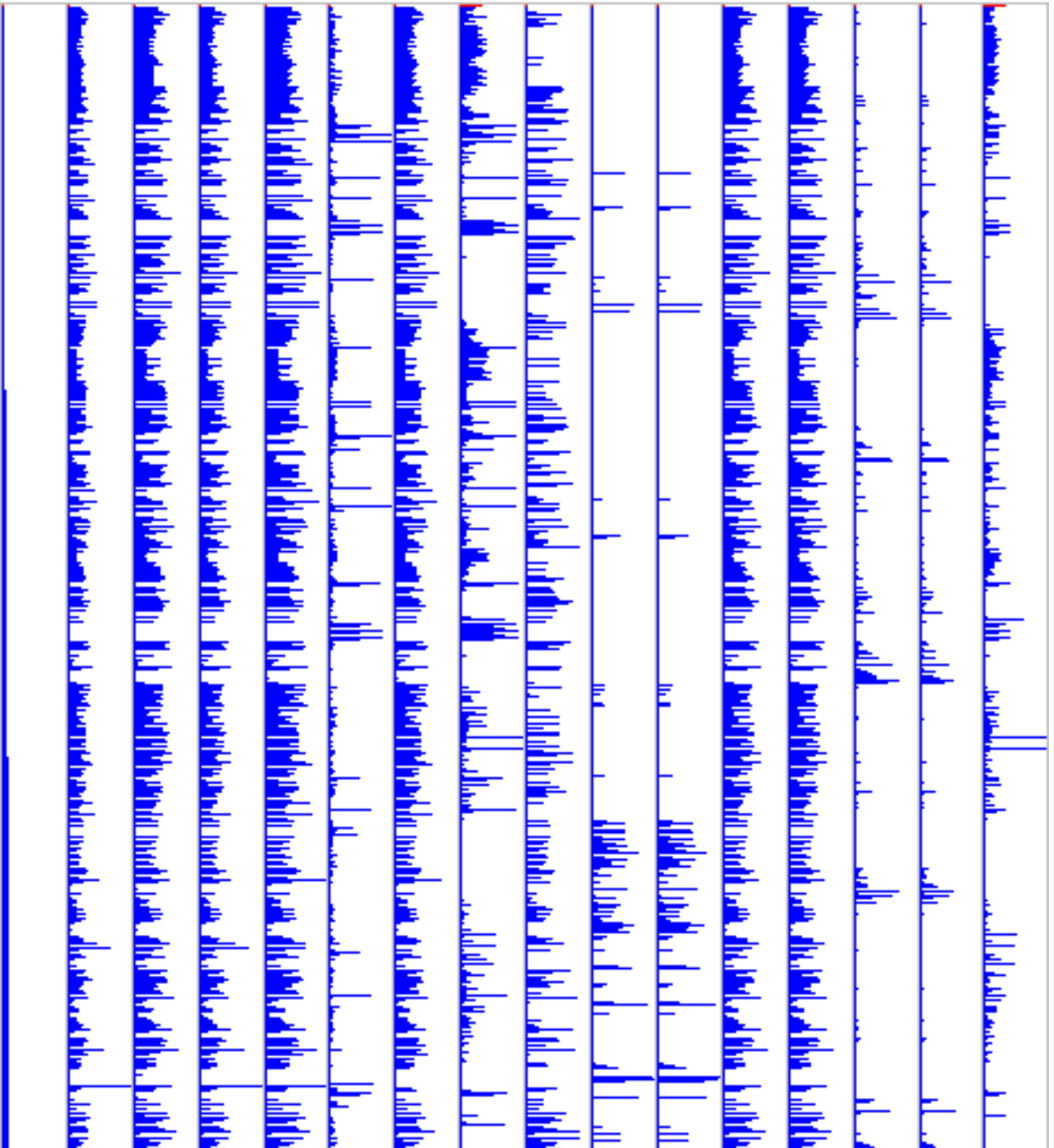
— att15



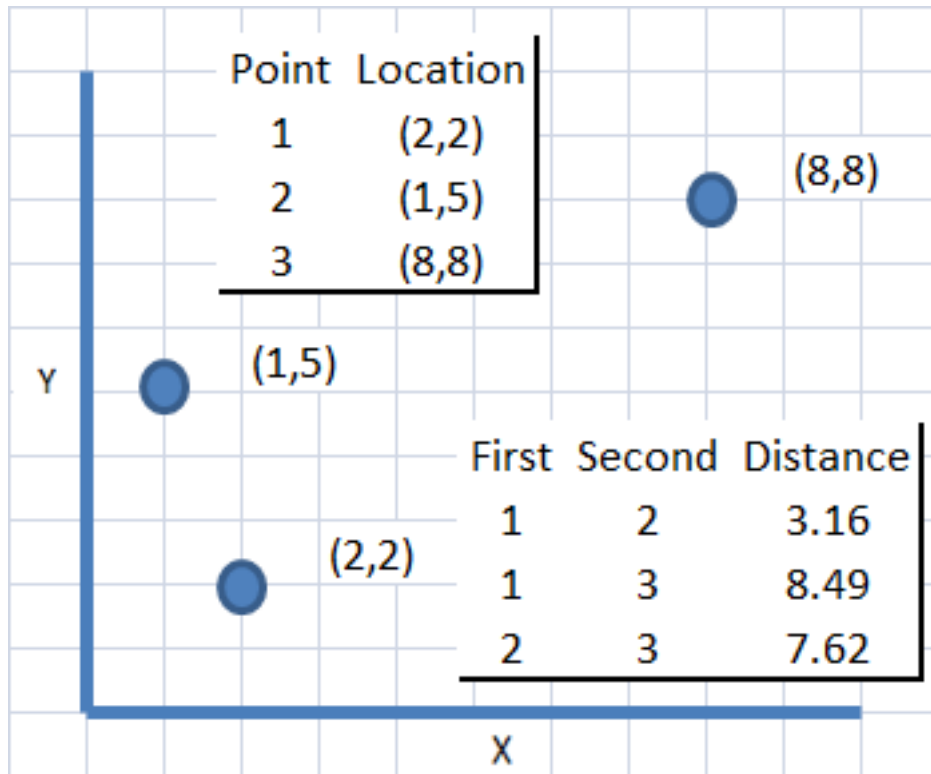
— movingAverageWindow200\_att15



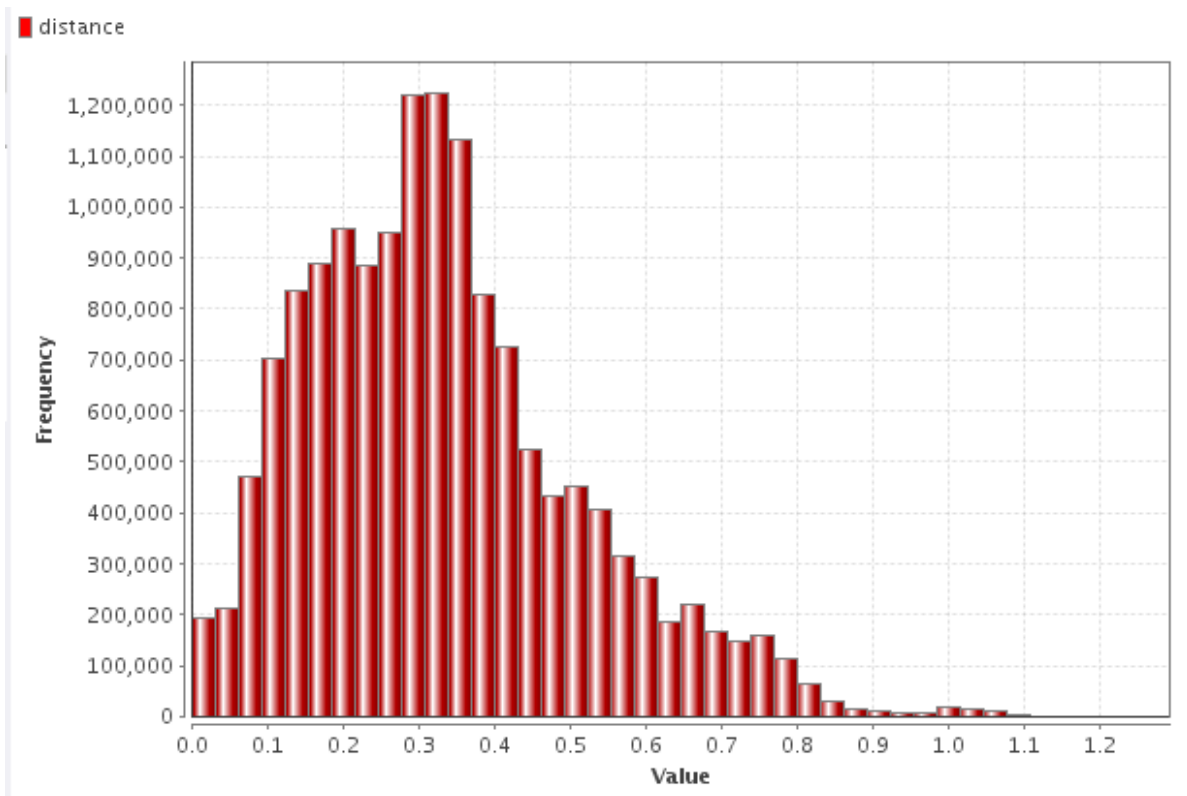


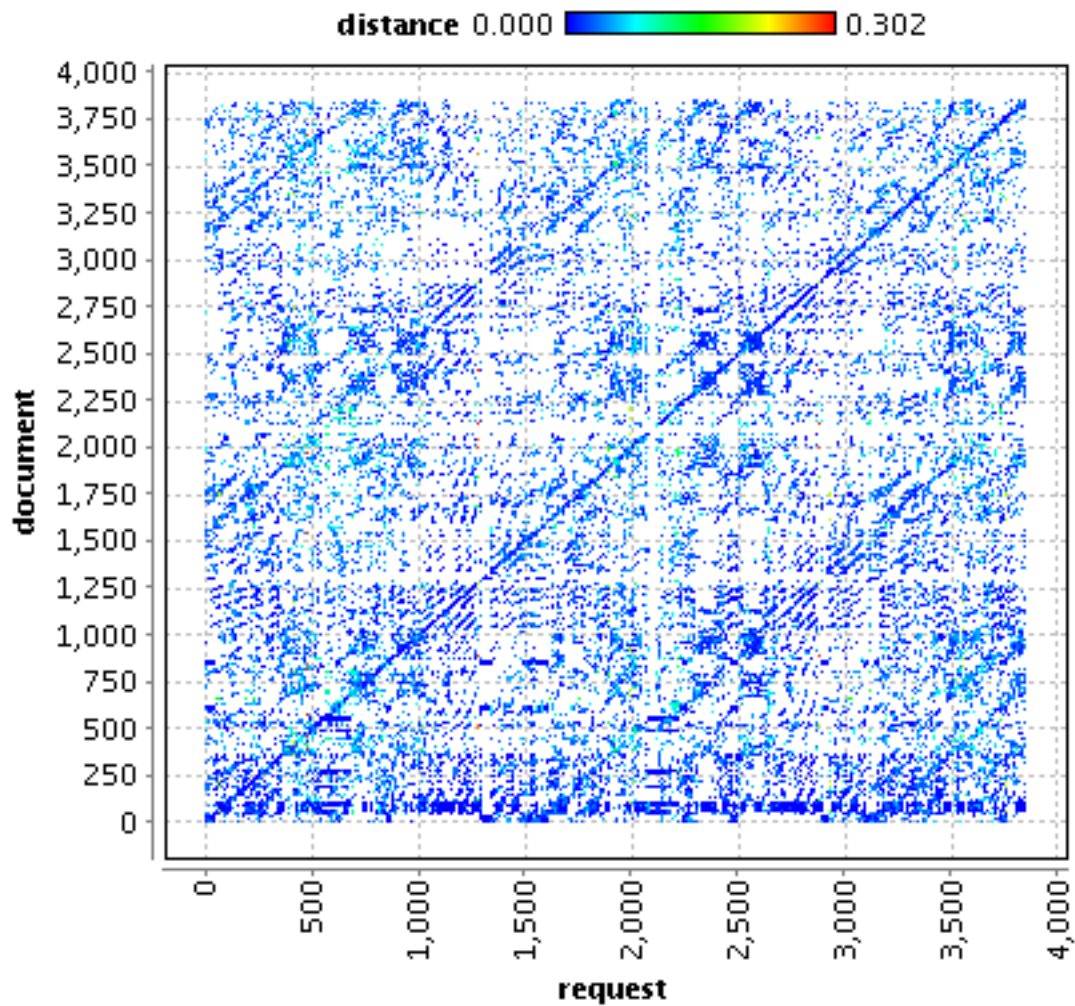










$$\sqrt{(2-1)^2 + (2-5)^2} = \sqrt{10} \approx 3.16$$









 Edit Parameter List: function descriptions ✕

 Edit Parameter List: **function descriptions**  
List of functions to generate.

attribute name	function expressions	
newAttribute	a1 + a2	

 Add Entry  Remove Entry  Apply  Cancel

<b>m1 (a macro)</b>	<b>a1 (an attribute)</b>	<b>a2 (an attribute)</b>	<b>expression</b>	<b>result</b>
1	2	3	%{m1}+a2	4
a1	2	3	%{m1}+a2	5
a1	one	two	%{m1}+a2	onetwo
one	one	two	"%{m1}" + a2	onetwo
a1	one	two	"%{m1}" + a2	a1two

Edit Parameter List: function descriptions
X



**Edit Parameter List: function descriptions**  
List of functions to generate.







attribute name	function expressions	
ADate	"3/2/1963 14:00:01"	
ADateAsDateFromString	date_parse_custom(ADate,"dd/MM/yyyy HH:mm:ss")	
ADateAsStringFullDateAndTime	date_str(ADateAsDateFromString,DATE_FULL,DATE_SHOW_DATE_AND_TIME)	
ADateAsStringLongDateAndTime	date_str(ADateAsDateFromString,DATE_LONG,DATE_SHOW_DATE_AND_TIME)	
ADateAsStringMediumDateAndTime	date_str(ADateAsDateFromString,DATE_MEDIUM,DATE_SHOW_DATE_AND_TIME)	
ADateAsStringShortDateAndTime	date_str(ADateAsDateFromString,DATE_SHORT,DATE_SHOW_DATE_AND_TIME)	
ADateAsStringShortDateOnly	date_str(ADateAsDateFromString,DATE_SHORT,DATE_SHOW_DATE_ONLY)	
ADateAsStringCustom	date_str_custom(ADateAsDateFromString,"d/M/yyyy HH:mm:ss")	
ADateUnixSeconds	round(date_diff(date_parse(0),ADateAsDateFromString)/1000)	
Now	date_now()	
UnixNowSeconds	round(date_diff(date_parse(0),Now)/1000)	
DiffFromDates	round(date_diff(ADateAsDateFromString,Now)/1000)	
DiffFromUnixTimes	UnixNowSeconds-ADateUnixSeconds	
ADateInTheFuture	date_add(ADateAsDateFromString,50,DATE_UNIT_YEAR)	


Add Entry
 Remove Entry
 Apply
 Cancel

Name	Type	Miss.	Statistics			Filter (14 / 14 attributes): <input type="text" value="Filter"/>
<b>ADate</b>	Nominal	0	Least 3/2/1963 14:00:01 (1)	Most 3/2/1963 14:00:01 (1)	Values 3/2/1963 14:00	
<b>ADateAsDateFromString</b>	Date time	0	Earliest date Feb 3, 1963 2:00 PM	Latest date Feb 3, 1963 2:00 PM	Duration 0d 0h 0m 0s	
<b>ADateAsStringFullDateAnd...</b>	Nominal	0	Least Sunday, February 3, 19...	Most Sunday, February 3, 19...	Values Sunday, Febru	
<b>ADateAsStringLongDateAn...</b>	Nominal	0	Least February 3, 1963 2:00:...	Most February 3, 1963 2:00:...	Values February 3, 19	
<b>ADateAsStringMediumDate...</b>	Nominal	0	Least Feb 3, 1963 2:00:01 PM...	Most Feb 3, 1963 2:00:01 PM...	Values Feb 3, 1963 2:	
<b>ADateAsStringShortDateAn...</b>	Nominal	0	Least 2/3/63 2:00 PM (1)	Most 2/3/63 2:00 PM (1)	Values 2/3/63 2:00 PM	
<b>ADateAsStringShortDateO...</b>	Nominal	0	Least 2/3/63 (1)	Most 2/3/63 (1)	Values 2/3/63 (1)	
<b>ADateAsStringCustom</b>	Nominal	0	Least 3/2/1963 14:00:01 (1)	Most 3/2/1963 14:00:01 (1)	Values 3/2/1963 14:00	
<b>ADateUnixSeconds</b>	Real	0	Min -218026799	Max -218026799	Average -218026799	Deviation 0
<b>Now</b>	Date time	0	Earliest date Nov 16, 2013 10:16 AM	Latest date Nov 16, 2013 10:16 AM	Duration 0d 0h 0m 0s	
<b>UnixNowSeconds</b>	Real	0	Min 1384593388	Max 1384593388	Average 1384593388	Deviation 0
<b>DiffFromDates</b>	Real	0	Min 1602620187	Max 1602620187	Average 1602620187	Deviation 0
<b>DiffFromUnixTimes</b>	Real	0	Min 1602620187	Max 1602620187	Average 1602620187	Deviation 0
<b>ADateInTheFuture</b>	Date time	0	Earliest date Feb 3, 2013 2:00 PM	Latest date Feb 3, 2013 2:00 PM	Duration 0d 0h 0m 0s	

Showing attributes: 1 - 14 Examples: 1 Special Attributes: 0 Regular Attributes: 14

Parameters  

      ▼

 **Generate Extract**


**source attribute**

**query type**

**attribute type**

**regular expression queries**

*value separator*

attribute name	query expression	
the	<code>{\bThe\W+(?:\w+\W+){1,6}?the\b}</code>	

## Edit Regular Expression



Edit Regular Expression:

Insert a regular expression, which first matching group specifies which content should be used as attribute value.

Regular Expression

Regular expression valid.

Replacement (for preview only)

Inline Text Search

Result List (5)

Regex Options

Text


The quick the lazy dog  
The quick brown the lazy dog  
The quick brown fox the lazy dog  
The quick brown fox jumped over the lazy dog  
The quick brown fox jumped over and the lazy dog  
The quick brown fox jumped over and over the lazy dog


Result preview

xxx lazy dog  
xxx lazy dog  
xxx lazy dog  
xxx lazy dog  
xxx lazy dog  
The quick brown fox jumped over and over the lazy dog





Apply


Cancel


 Edit Parameter List: xpath queries X

 Edit Parameter List: **xpath queries**  
 Specifies a list of attribute names and their corresponding XPath queries. See the operator documentation for details on XPath.

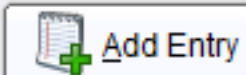
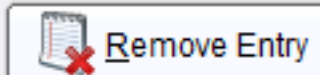


attribute name	query expression
date	//soap:Body/ns2:getFolderContentsResponse//location[text()='~/home/rapidanalytics/svm']../date/text()

 Add Entry
  Remove Entry
  Apply
  Cancel

 Edit Parameter List: namespaces X

 Edit Parameter List: **namespaces**  
 Specifies pairs of identifier and namespace for use in XPath queries. The namespace for (x)html is bound automatically to the identifier h.

id	name space
ns2	http://service.web.rapidanalytics.de/
soap	http://schemas.xmlsoap.org/soap/envelope/

 Add Entry
  Remove Entry
  Apply
  Cancel

ExampleSet (2 examples, 0 special attributes, 1 regular attribute)

Row No.	nominal
1	the color green is one of the colors of the rainbow
2	is black a color?








ExampleSet (2 examples, 0 special attributes, 1 regular attribute)

Row No.	nominal
1	the colour green is one of the colours of the rainbow
2	is black a colour?

ExampleSet (1 example, 0 special attributes, 2 regular attributes)

Row No.	from	to
1	color	colour

Parameters

### Replace (Dictionary)

*create view*

attribute filter type all

invert selection

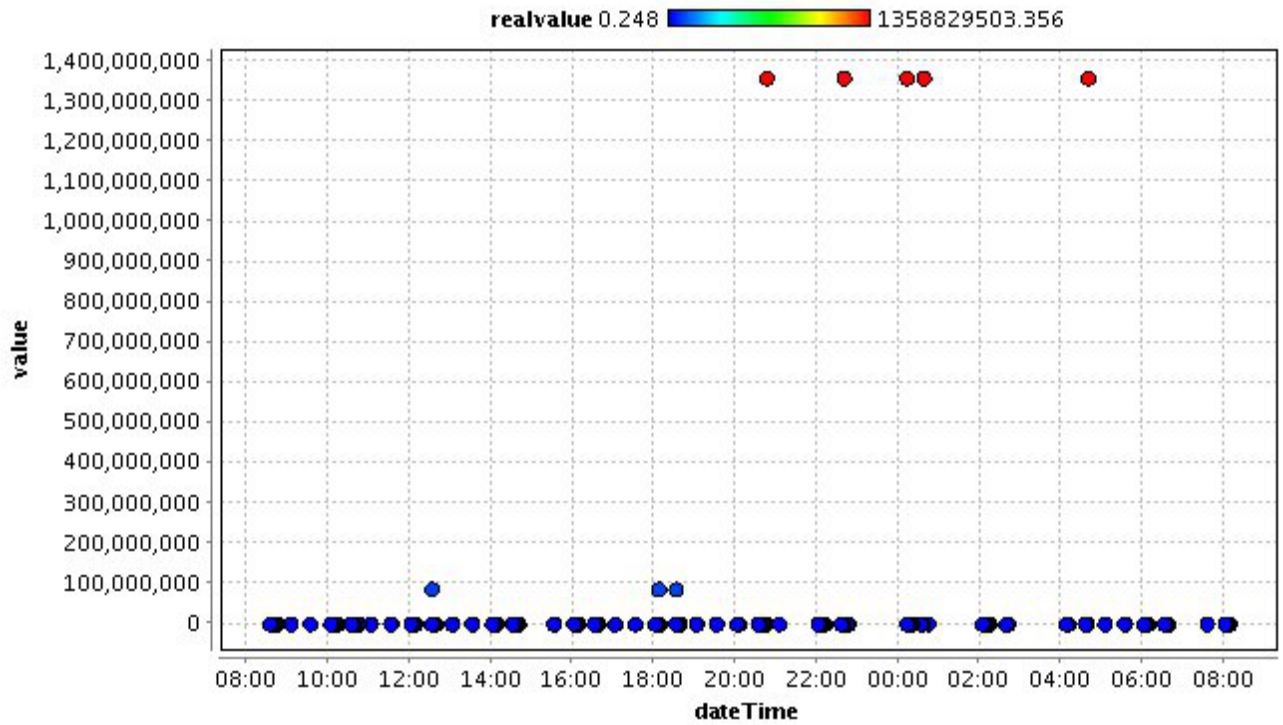
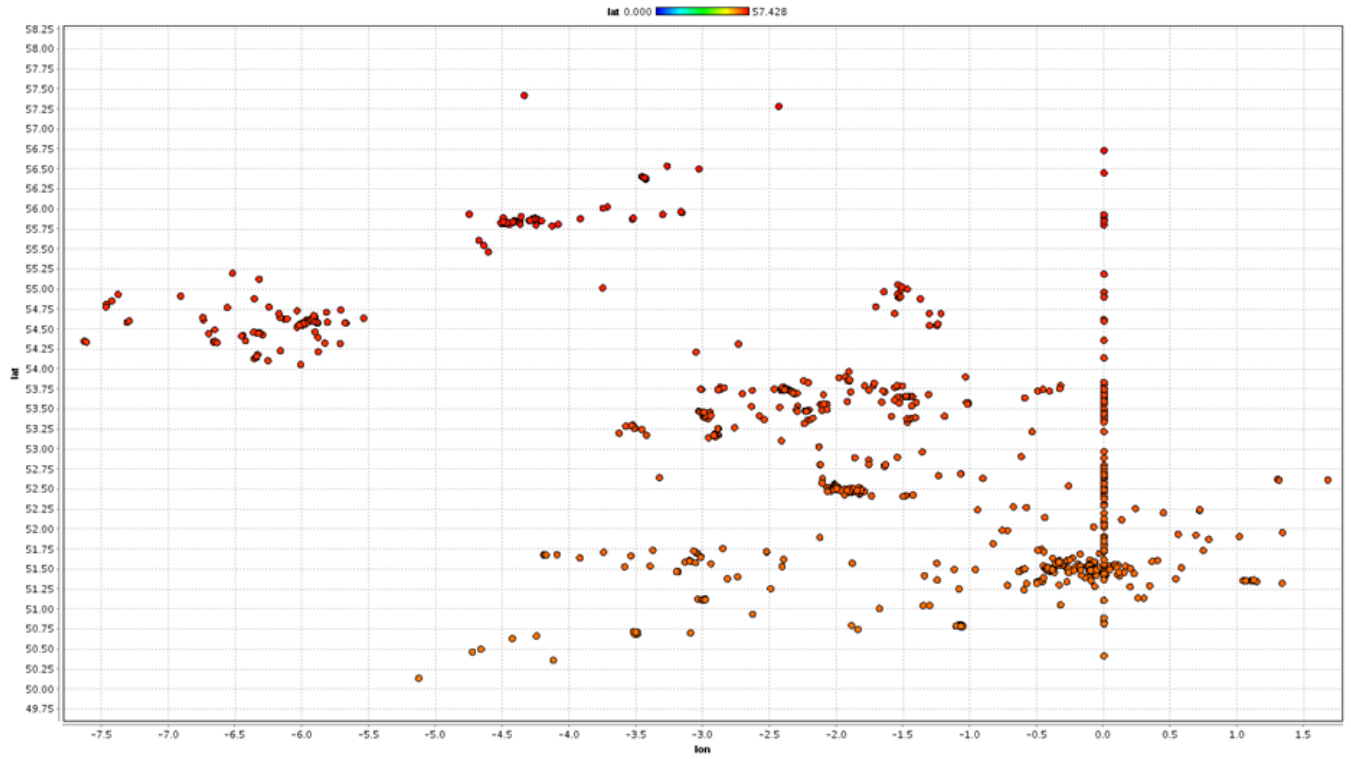
include special attributes

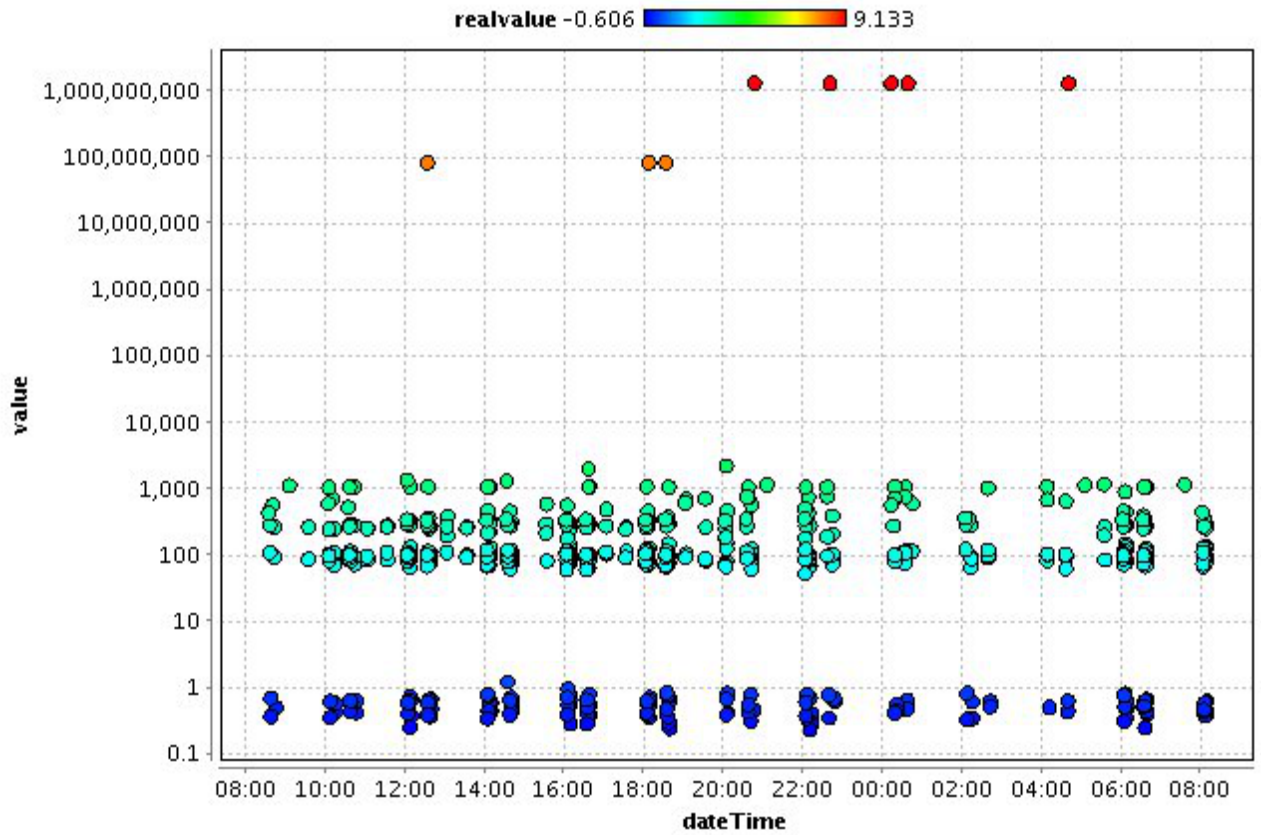
from attribute from

to attribute to

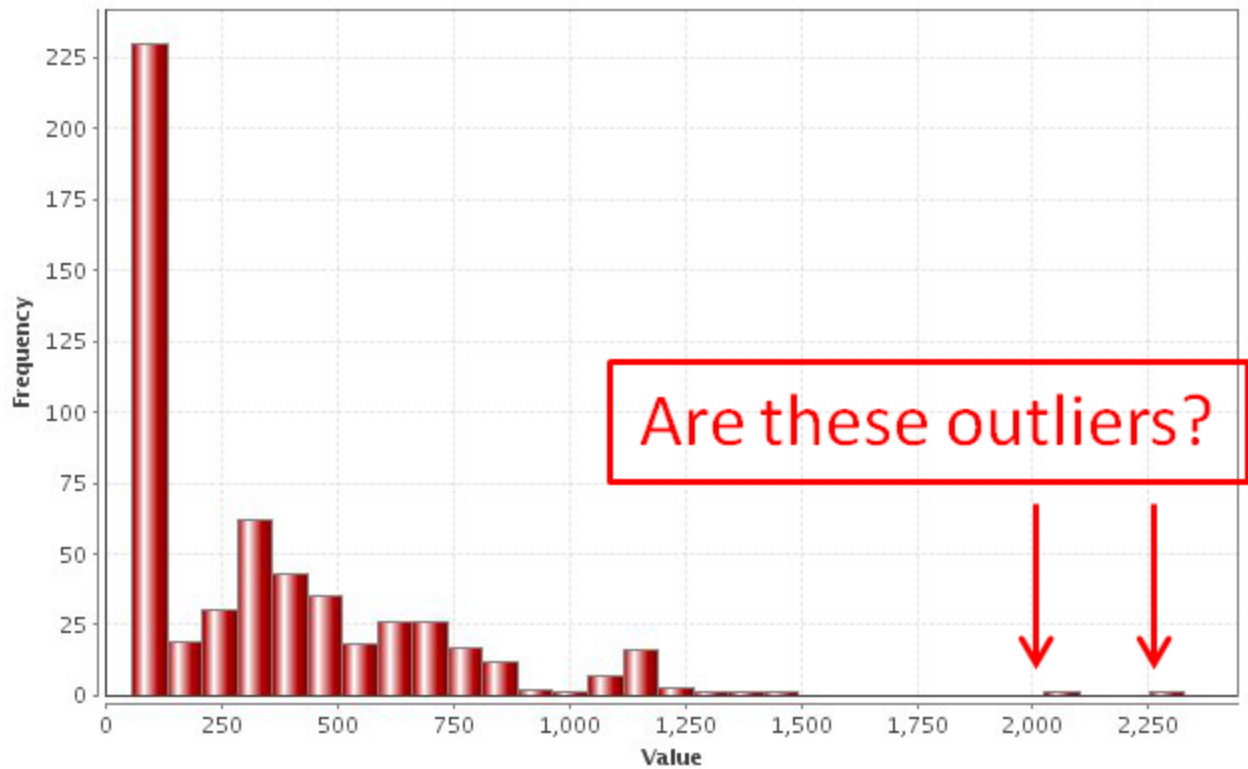
*use regular expressions*

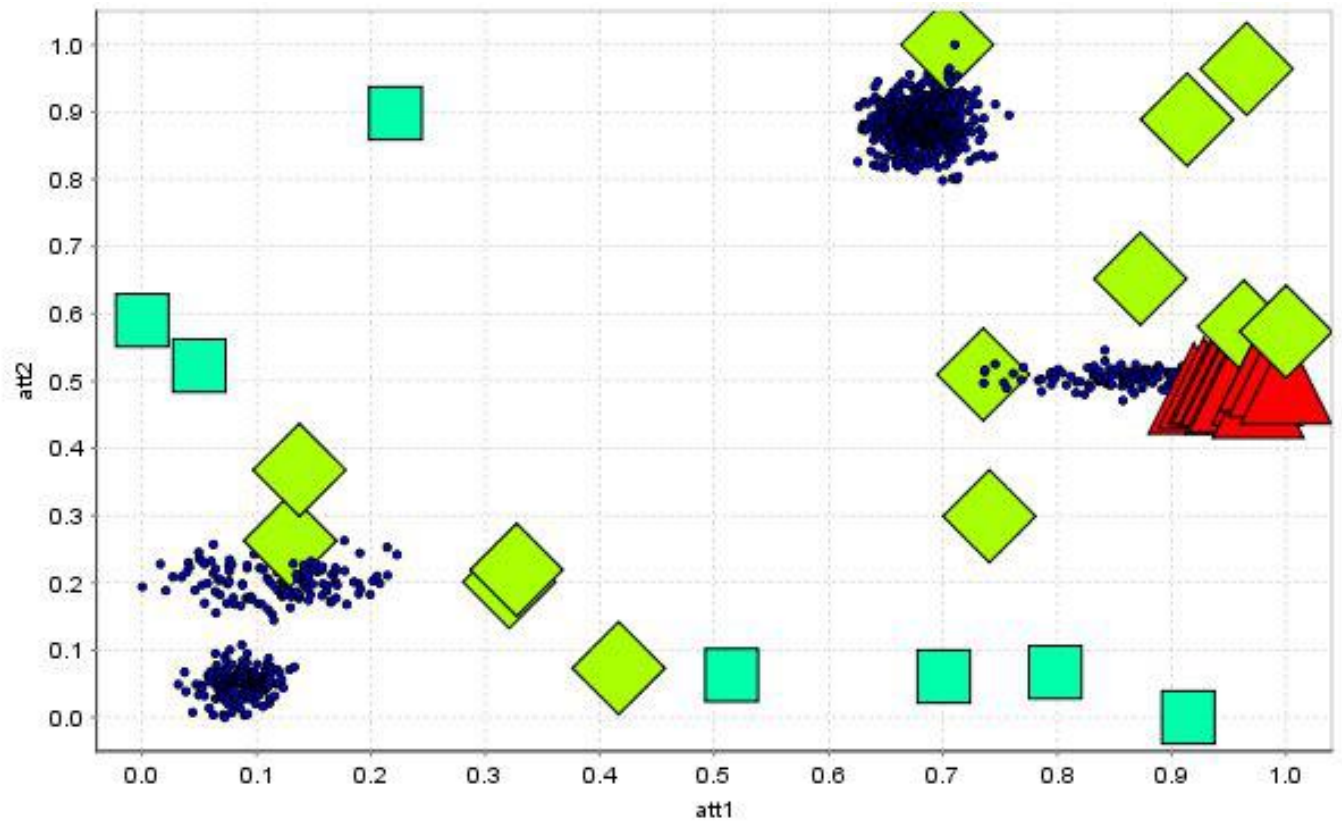
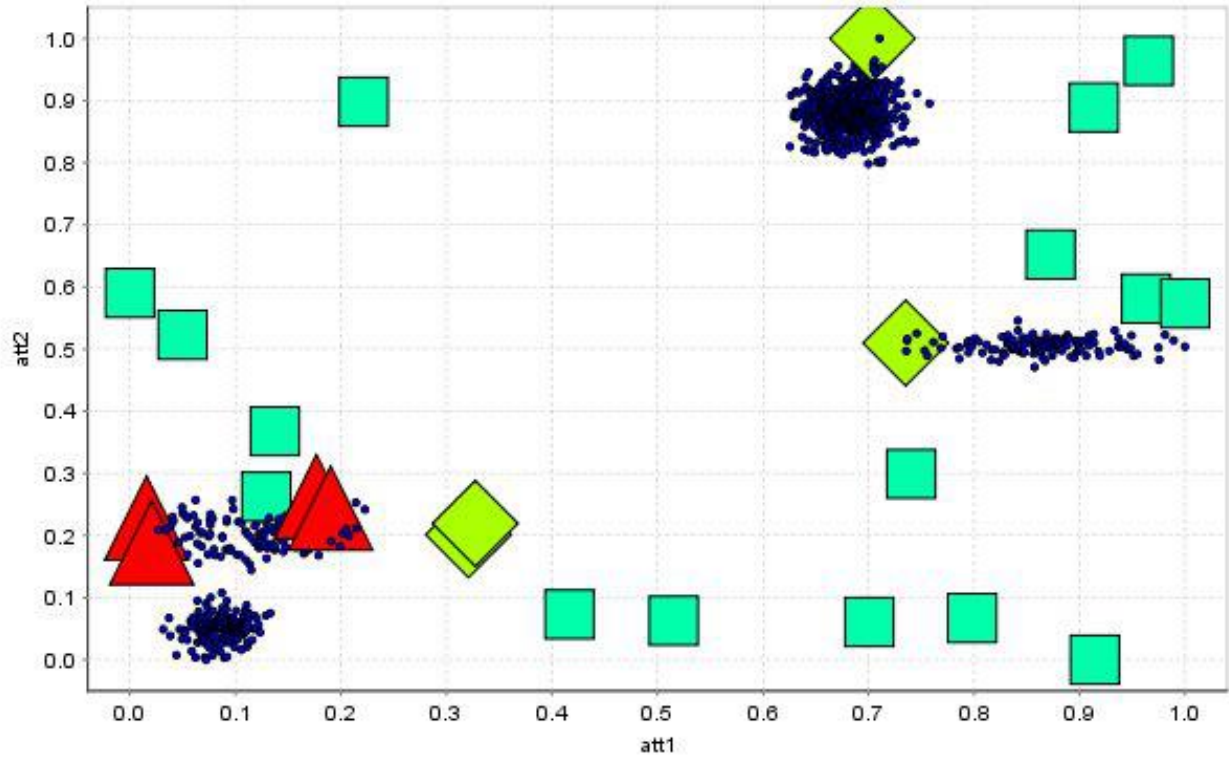


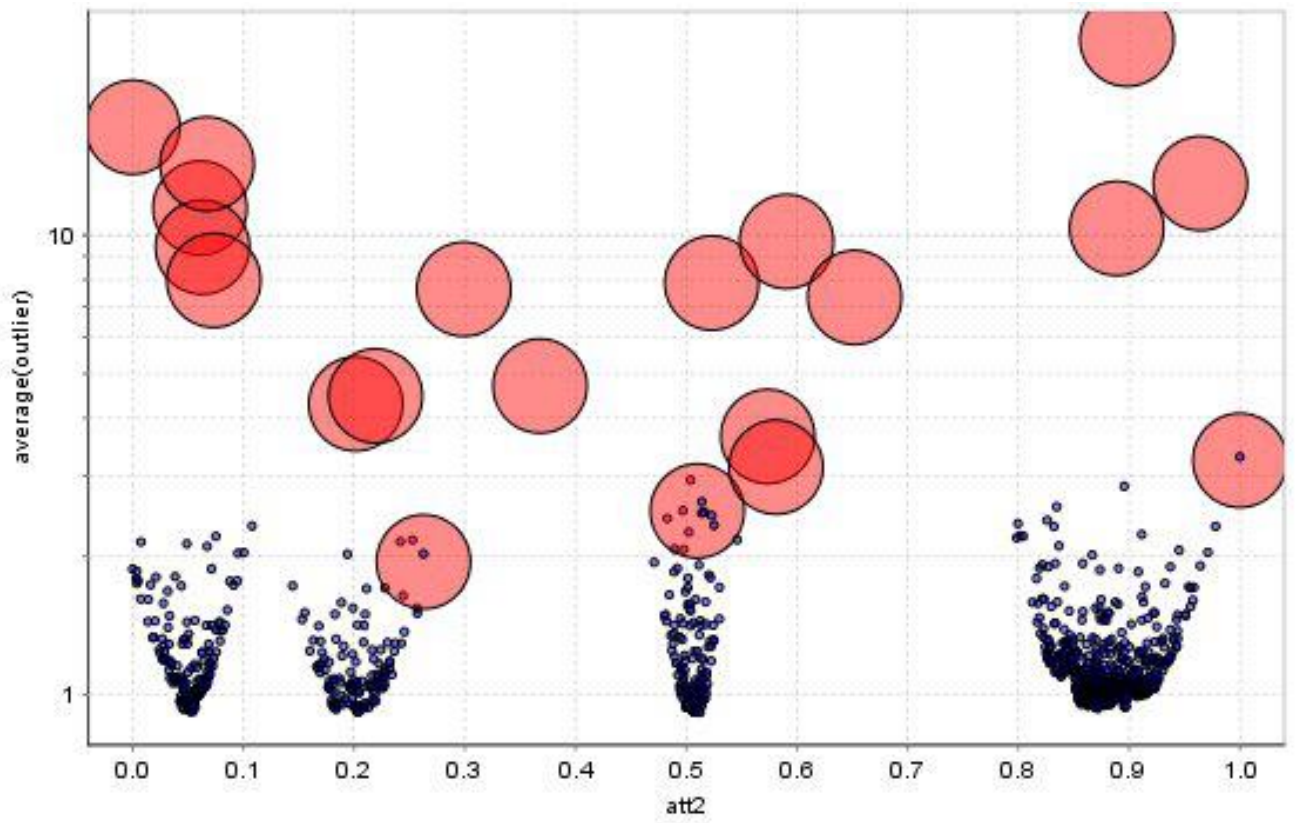
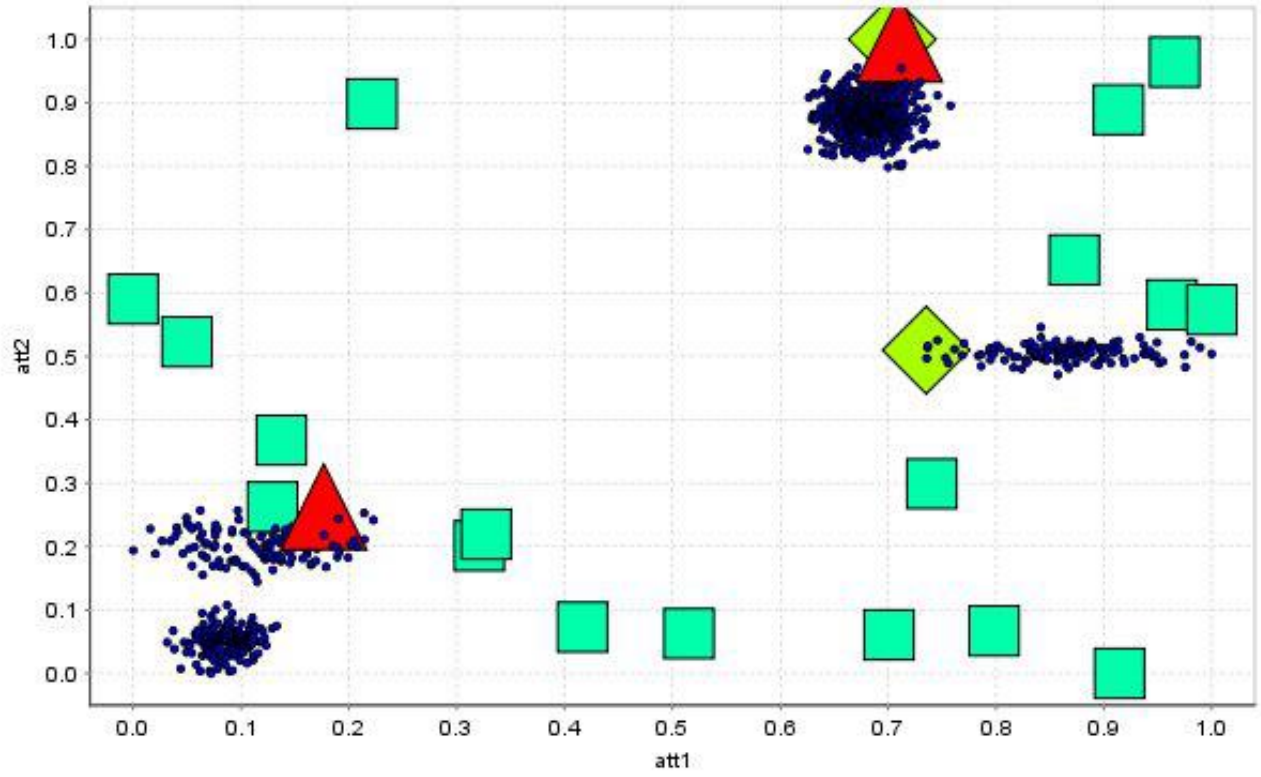


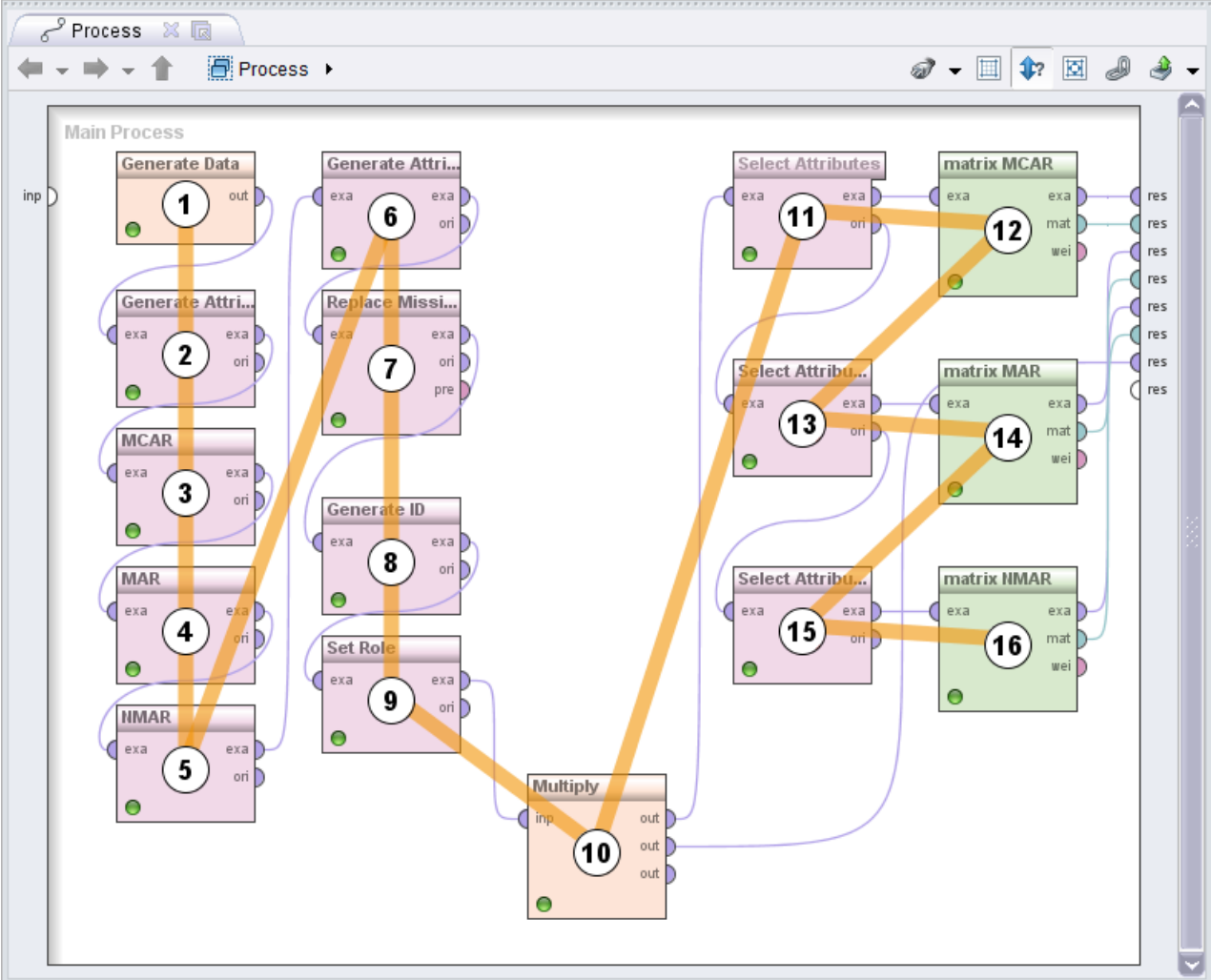


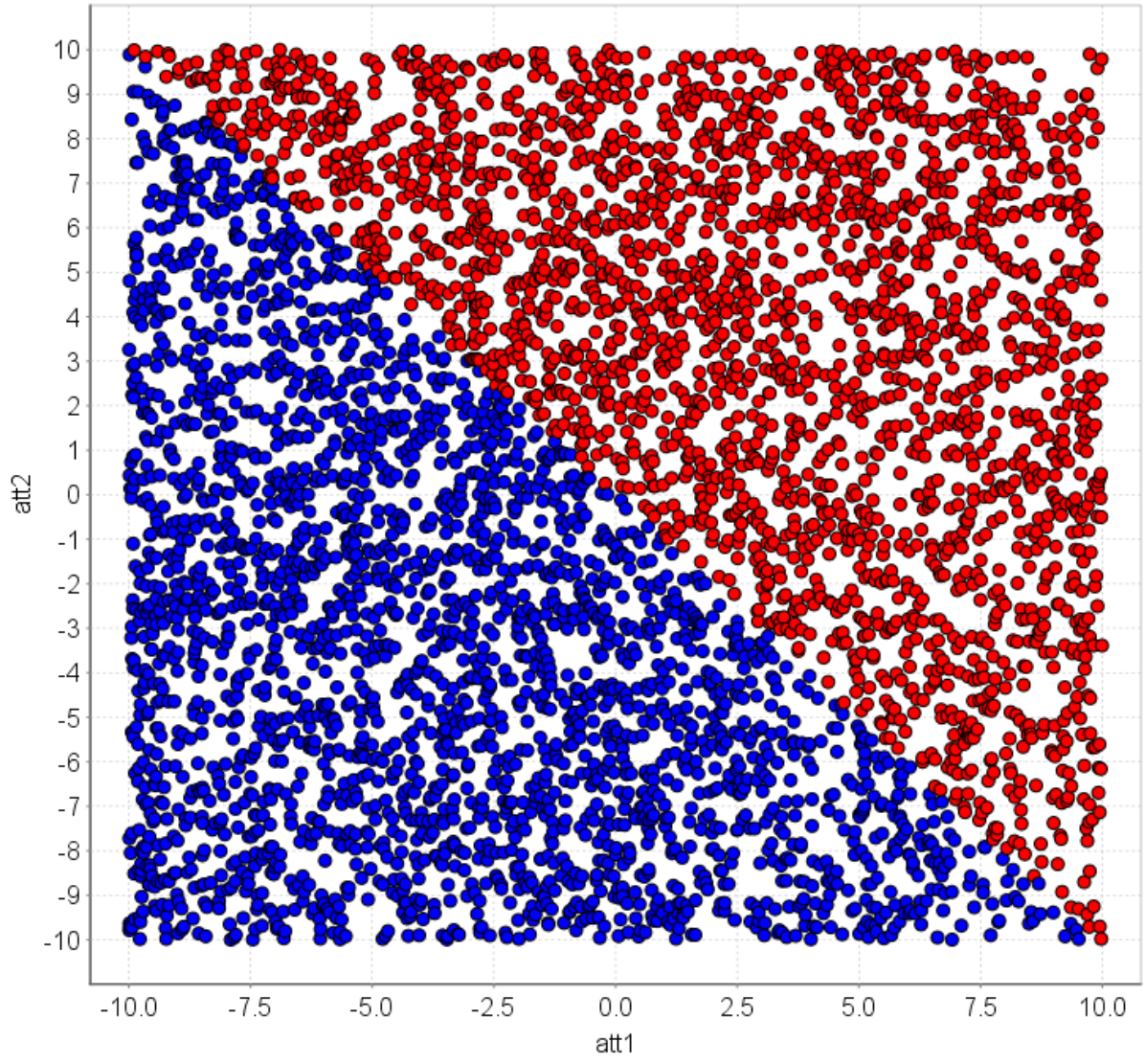
correctValue3







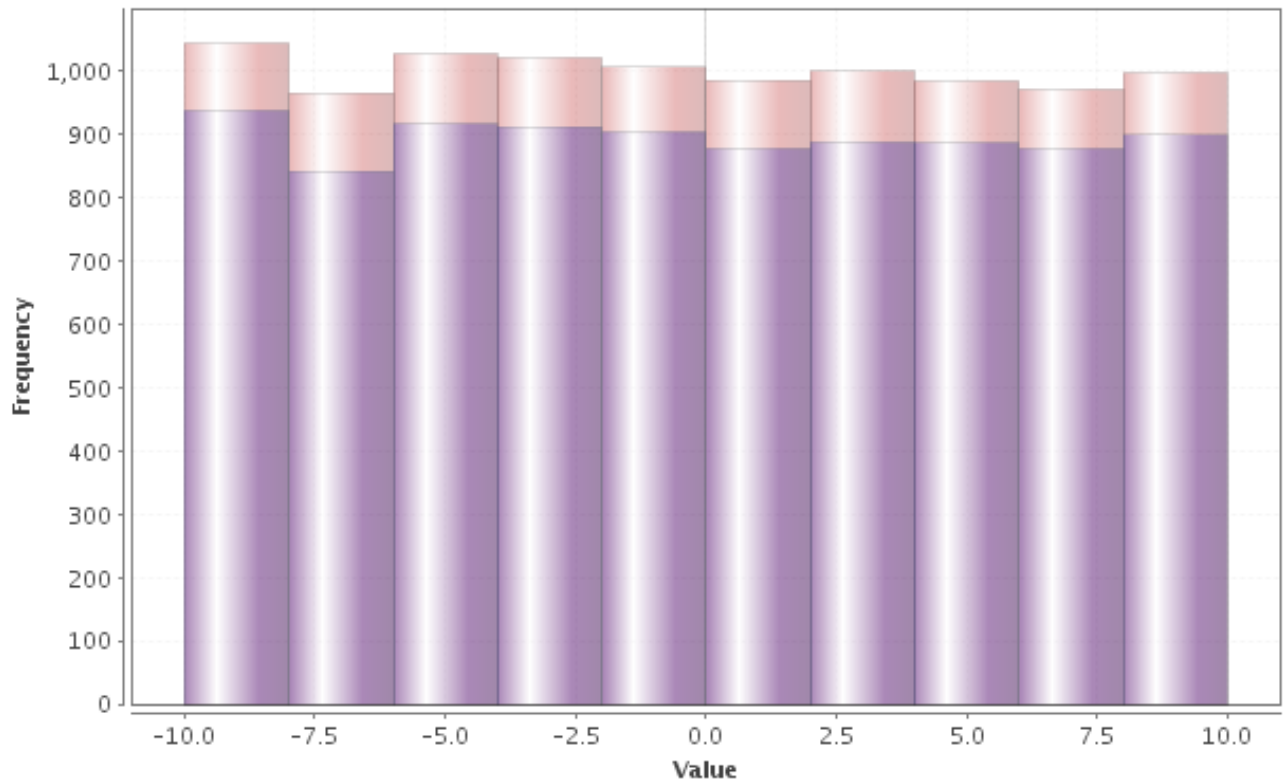




ExampleSet (10000 examples, 2 special attributes, 8 regular attributes) / 10,000 examples:

id	label	att1	att2	att1MCARStatus	att1MCAR	att1MARStatus	att1MAR	att1NMARStatus	att1NMAR
1	positive	2.468	7.267	false	2.468	false	2.468	false	2.468
2	negative	1.292	-8.625	false	1.292	false	1.292	false	1.292
3	negative	-5.590	-0.307	false	-5.590	false	-5.590	false	-5.590
4	positive	-6.351	9.370	false	-6.351	false	-6.351	false	-6.351
5	positive	1.241	8.733	false	1.241	false	1.241	false	1.241
6	negative	-8.768	3.852	true	?	true	?	false	-8.768
7	negative	-5.190	-1.978	true	?	false	-5.190	false	-5.190
8	negative	-6.225	-9.413	true	?	false	-6.225	false	-6.225
9	negative	-7.154	-8.453	false	-7.154	false	-7.154	false	-7.154
10	negative	-4.696	-4.395	true	?	false	-4.696	false	-4.696
11	positive	5.304	-2.017	false	5.304	false	5.304	true	?
12	positive	0.911	0.057	false	0.911	false	0.911	false	0.911
13	positive	5.377	8.017	false	5.377	false	5.377	true	?
14	positive	0.328	6.166	false	0.328	false	0.328	false	0.328
15	negative	-2.608	-1.474	false	-2.608	false	-2.608	false	-2.608
16	negative	-2.585	-9.906	true	?	false	-2.585	false	-2.585
17	positive	5.895	0.971	false	5.895	false	5.895	true	?
18	negative	-4.110	2.683	false	-4.110	true	?	false	-4.110
19	positive	5.533	3.061	false	5.533	true	?	true	?
20	negative	-4.080	-7.754	false	-4.080	false	-4.080	false	-4.080

att1MCAR att1

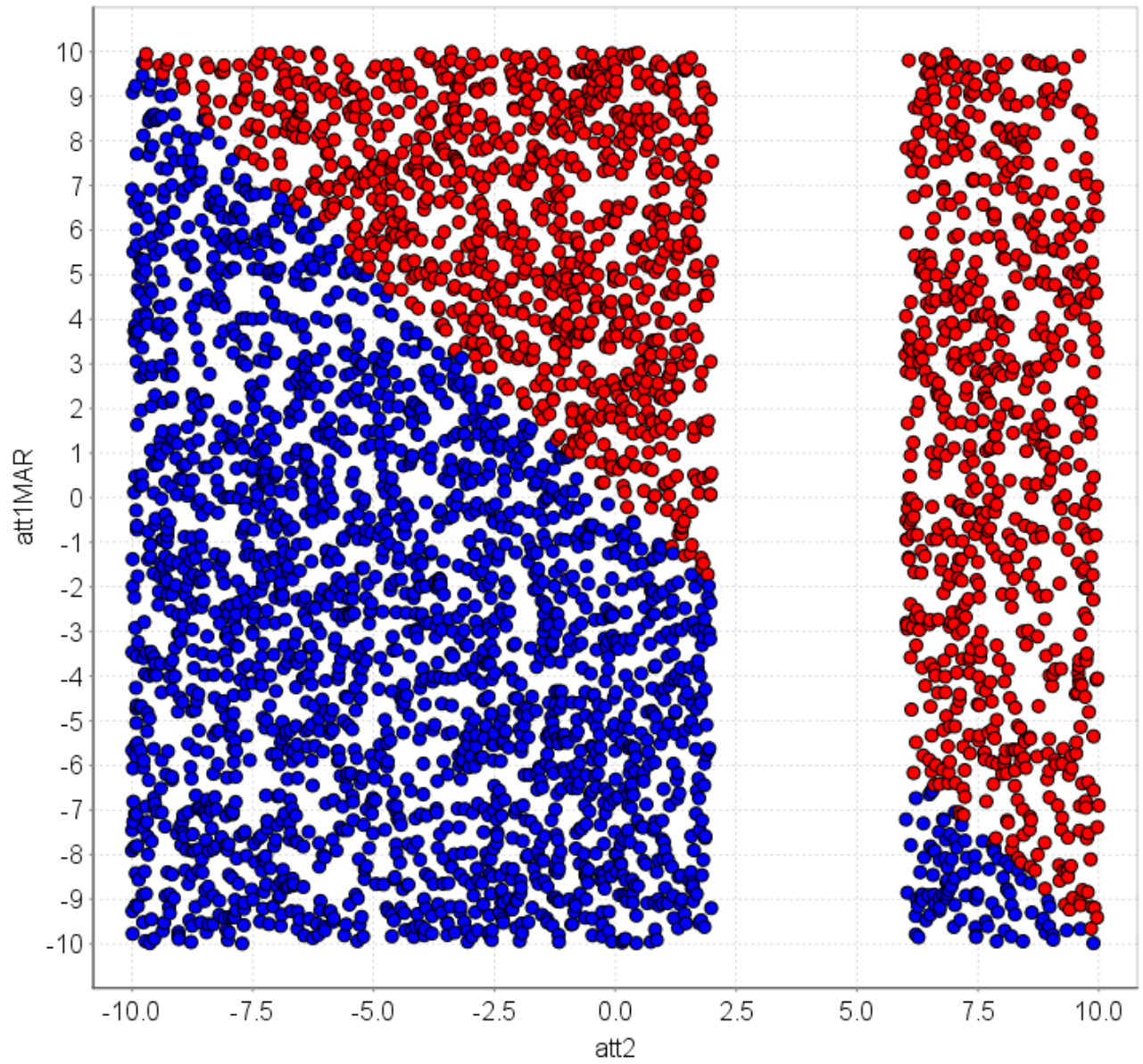


Correlation Matrix (matrix MAR)

Table View
  Pairwise Table
  Plot View
  Annotations

Attributes	att1MARStatus	att2	att1MAR	label
att1MARStatus	1	0.119	?	0.040
att2	0.119	1	0.000	0.328
att1MAR	?	0.000	1	0.317
label	0.040	0.328	0.317	1



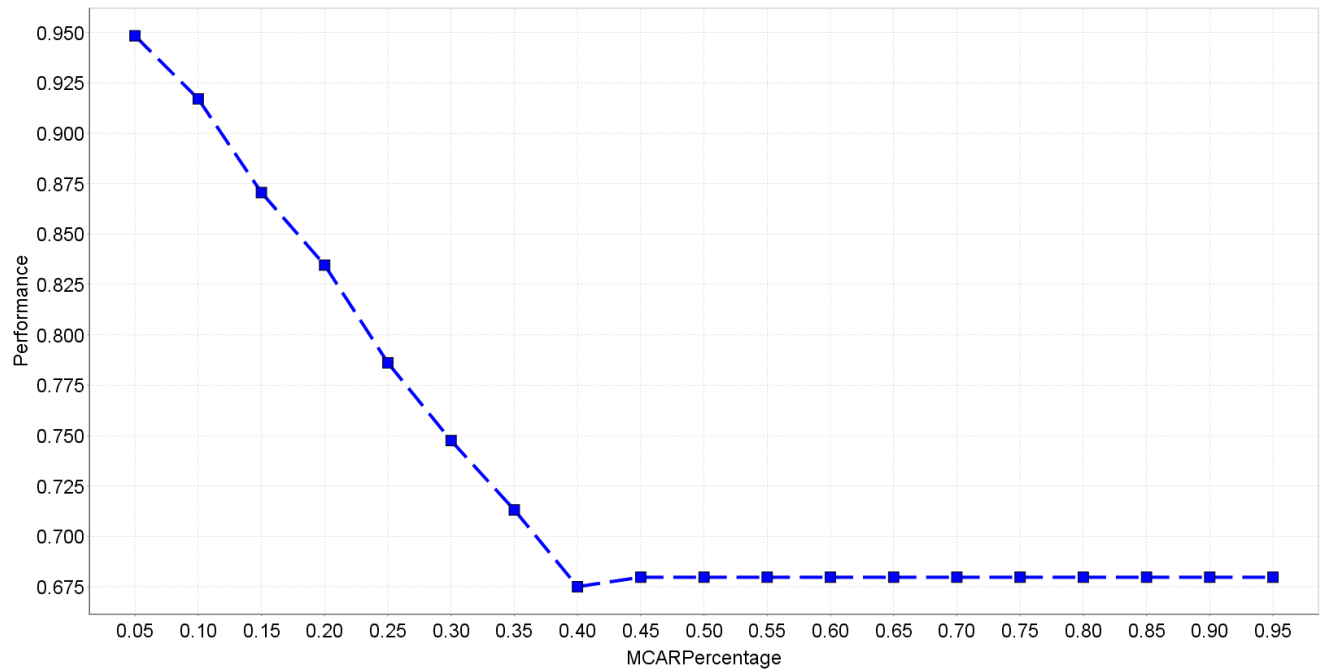
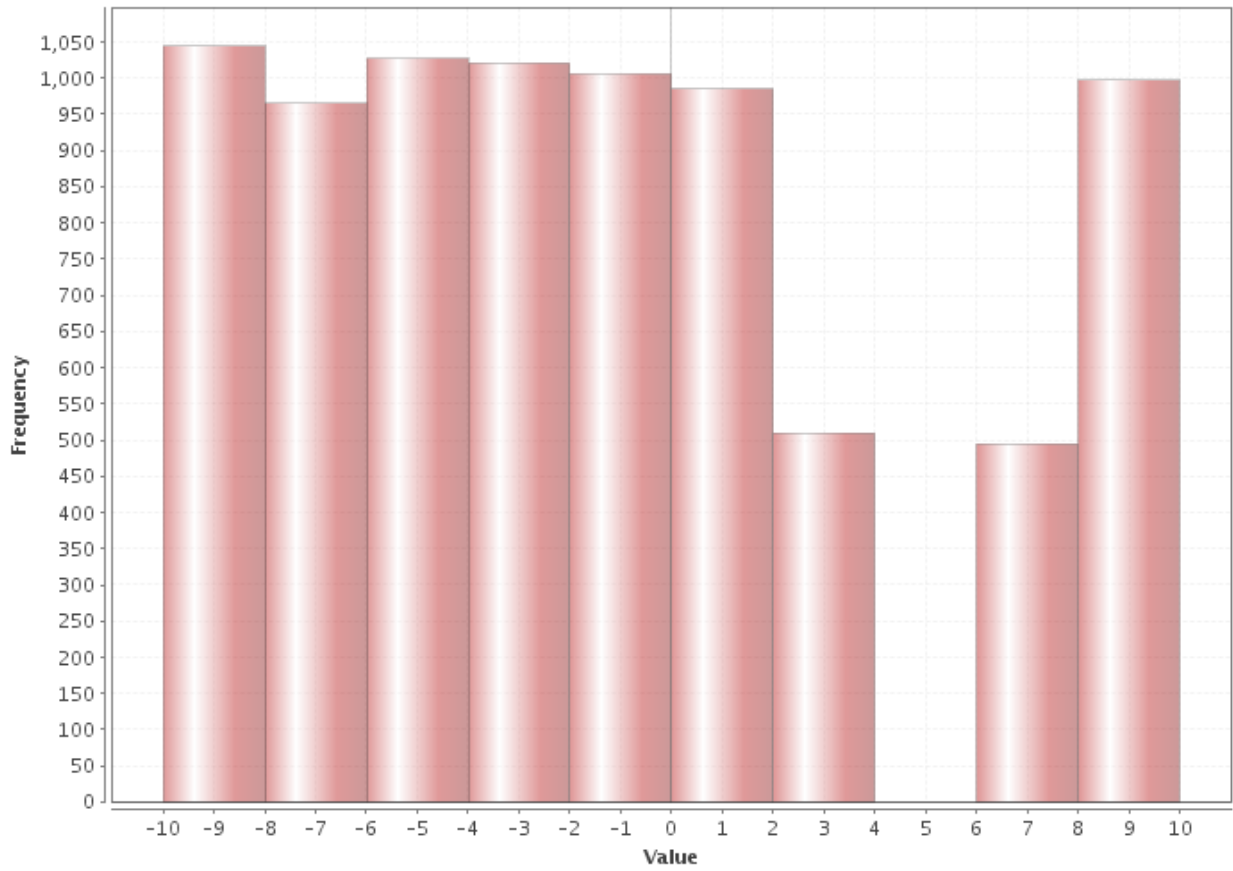


Correlation Matrix (matrix NMAR)

Table View
  Pairwise Table
  Plot View
  Annotations

Attributes	att1NMARStatus	att2	att1NMAR	label
att1NMARStatus	1	0.000	?	0.060
att2	0.000	1	0.000	0.328
att1NMAR	?	0.000	1	0.355
label	0.060	0.328	0.355	1

att1NMAR



ExampleSet (11 examples, 1 special attribute, 4 regular attributes)

Row No.	id	apple	banana	carrot	daikon
1	1	1	0	0	0
2	1	1	2	1	0
3	1	0	0	1	0
4	1	0	1	0	1
5	1	0	0	0	1
6	2	1	3	0	1
7	2	1	0	2	1
8	2	0	1	0	0
9	3	1	0	0	1
10	3	0	0	2	0
11	4	0	3	0	1

Parameters

sum fruit (Generate Aggregation)

attribute name

attribute filter type

regular expression

use except expression

invert selection

include special attributes

aggregation function

keep all

ignore missings

ExampleSet (11 examples, 0 special attributes, 3 regul

Row No.	id	fruit	vegetable
1	1	1	0
2	1	3	1
3	1	0	1
4	1	1	1
5	1	0	1
6	2	4	1
7	2	1	3
8	2	1	0
9	3	1	1
10	3	0	2
11	4	3	1

Parameters

mean fruit (Extract Macro)

macro: averageFruit

macro type: statistics

statistics: average

attribute name: fruit

attribute name	function expressions
zFruit	$(\text{fruit} - \% \{ \text{averageFruit} \}) / \% \{ \text{standardDeviationFruit} \}$
zVegetable	$(\text{vegetable} - \% \{ \text{averageVegetable} \}) / \% \{ \text{standardDeviationVegetable} \}$

ExampleSet (11 examples, 0 special attributes, 5 regular attributes)

Row No.	id	fruit	vegetable	zFruit	zVegetable
1	1	1	0	-0.267	-1.312
2	1	3	1	1.202	-0.109
3	1	0	1	-1.001	-0.109
4	1	1	1	-0.267	-0.109
5	1	0	1	-1.001	-0.109
6	2	4	1	1.936	-0.109
7	2	1	3	-0.267	2.297
8	2	1	0	-0.267	-1.312
9	3	1	1	-0.267	-0.109
10	3	0	2	-1.001	1.094
11	4	3	1	1.202	-0.109

ExampleSet (11 examples, 0 special attributes, 5 regular attributes) 1 examples): all

Row No.	id	fruit	vegetable	zFruit	zVegetable
1	1	1	0	-0.267	-1.312
2	1	3	1	1.202	-0.109
3	1	0	1	-1.001	-0.109
4	1	1	1	-0.267	-0.109
5	1	0	1	-1.001	-0.109
6	2	4	1	1.936	-0.109
7	2	1	3	-0.267	2.297
8	2	1	0	-0.267	-1.312
9	3	1	1	-0.267	-0.109
10	3	0	2	-1.001	1.094
11	4	3	1	1.202	-0.109

ExampleSet (4 examples, 1 special attribute, 2 regular attributes)(4 / 4 examples):

Row No.	id	sum(fruit)	sum(vegetable)
1	1	5	4
2	2	6	4
3	3	1	3
4	4	3	1



Select Attributes: group by attributes



Select Attributes: **group by attributes**  
Performs a grouping by the values of the attributes whose names match the given regular expression.

Attributes


- apple
- banana
- carrot
- daikon
- fruit
- vegetable
- zFruit
- zVegetable




Selected Attributes




- id



 Edit Parameter List: aggregation attribu... ✕

 Edit Parameter List: **aggregation attributes**  
The attributes which should be aggregated.

aggregation attribute	aggregation functions
fruit	sum
vegetable	sum

 Add Entry
 Remove Entry
 Apply

ExampleSet (7 examples, 0 special attributes, 3 reg

Row No.	id	name	value
1	1	apple	1
2	1	banana	0
3	1	carrot	2
4	1	daikon	1
5	2	apple	0
6	3	apple	3
7	3	carrot	1

ExampleSet (3 examples, 0 special attributes, 5 regular attributes) / 3 examples): all

Row No.	id	value_apple	value_banana	value_carrot	value_daikon
1	1	1	0	2	1
2	2	0	?	?	?
3	3	3	?	1	?

Parameters

Pivot

group attribute: id

index attribute: name

consider weights

skip constant attributes

datamanagement: double\_array

Parameters

De-Pivot

attribute name: Edit List (1)...

index attribute: name

create nominal index

keep missings

Compatibility level: 5.3.014

Edit Parameter List: attribute name

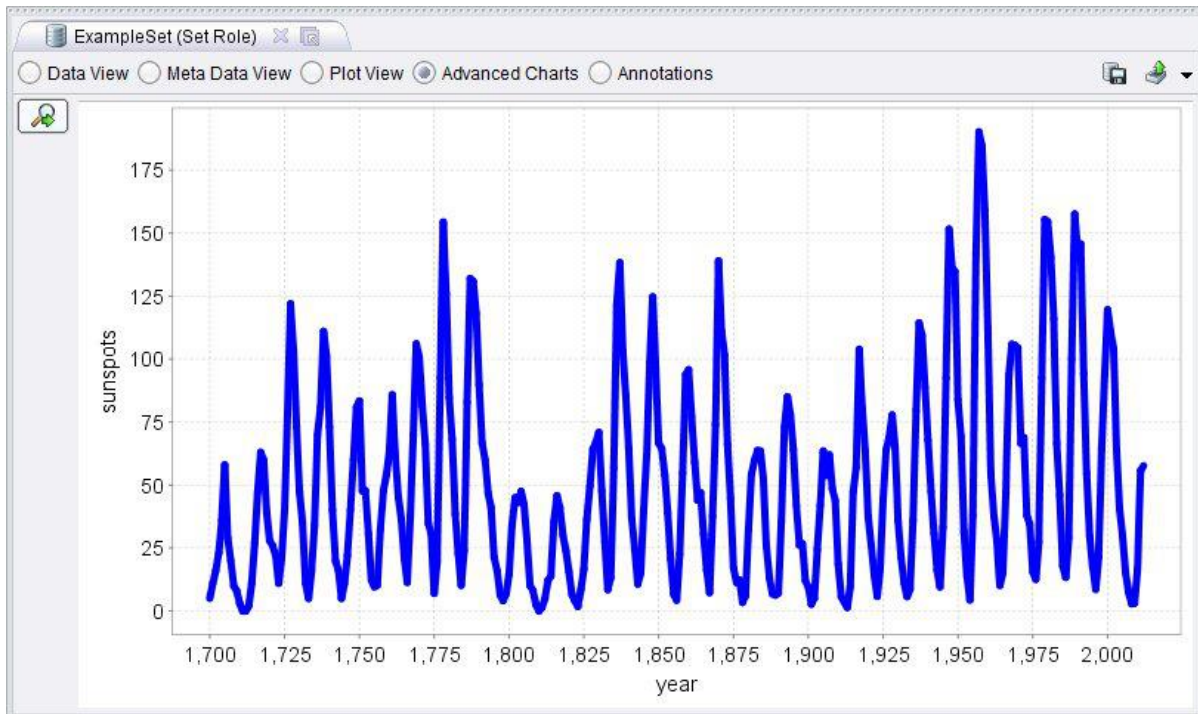
Edit Parameter List: **attribute name**  
Maps a number of source attributes onto result attributes.

attribute name	attributes
value	value.*

Add Entry Remove Entry Apply

ExampleSet (7 examples, 0 special attributes, 3 regular at

Row No.	id	name	value
1	1	value_apple	1
2	1	value_banana	0
3	1	value_carrot	2
4	1	value_daikon	1
5	2	value_apple	0
6	3	value_apple	3
7	3	value_carrot	1



ExampleSet (28 examples, 1 special attribute, 11 regular attributes)											Filter (28 / 28 examples):	
...	year	sunspots-10	sunspots-9	sunspots-8	sunspots-7	sunspots-6	sunspots-5	sunspots-4	sunspots-3	sunspots-2	sunspots-1	sunspots-0
1	1710	5	11	16	23	36	58	29	20	10	8	3
2	1721	0	0	2	11	27	47	63	60	39	28	26
3	1732	22	11	21	40	78	122	103	73	47	35	11
4	1743	5	16	34	70	81	111	101	73	40	20	16
5	1754	5	11	22	40	60	80.900	83.400	47.700	47.800	30.700	12.200
6	1765	9.600	10.200	32.400	47.600	54	62.900	85.900	61.200	45.100	36.400	20.900
7	1776	11.400	37.800	69.800	106.100	100.800	81.600	66.500	34.800	30.600	7	19.800
8	1787	92.500	154.400	125.900	84.800	68.100	38.500	22.800	10.200	24.100	82.900	132
9	1798	130.900	118.100	89.900	66.600	60	46.900	41	21.300	16	6.400	4.100
1	1809	6.800	14.500	34	45	43.100	47.500	42.200	28.100	10.100	8.100	2.500
1	1820	0	1.400	5	12.200	13.900	35.400	45.800	41	30.100	23.900	15.600
1	1831	6.600	4	1.800	8.500	16.600	36.300	49.600	64.200	67	70.900	47.800
1	1842	27.500	8.500	13.200	56.900	121.500	138.300	103.200	85.700	64.600	36.700	24.200
1	1853	10.700	15	40.100	61.500	98.500	124.700	96.300	66.600	64.500	54.100	39
1	1864	20.600	6.700	4.300	22.700	54.800	93.800	95.800	77.200	59.100	44	47
1	1875	30.500	16.300	7.300	37.600	74	139	111.200	101.600	66.200	44.700	17

Parameters

Windowing

series representation encode\_series\_by\_examples ▾

window size 11

step size 11

create single attributes

create label

add incomplete windows

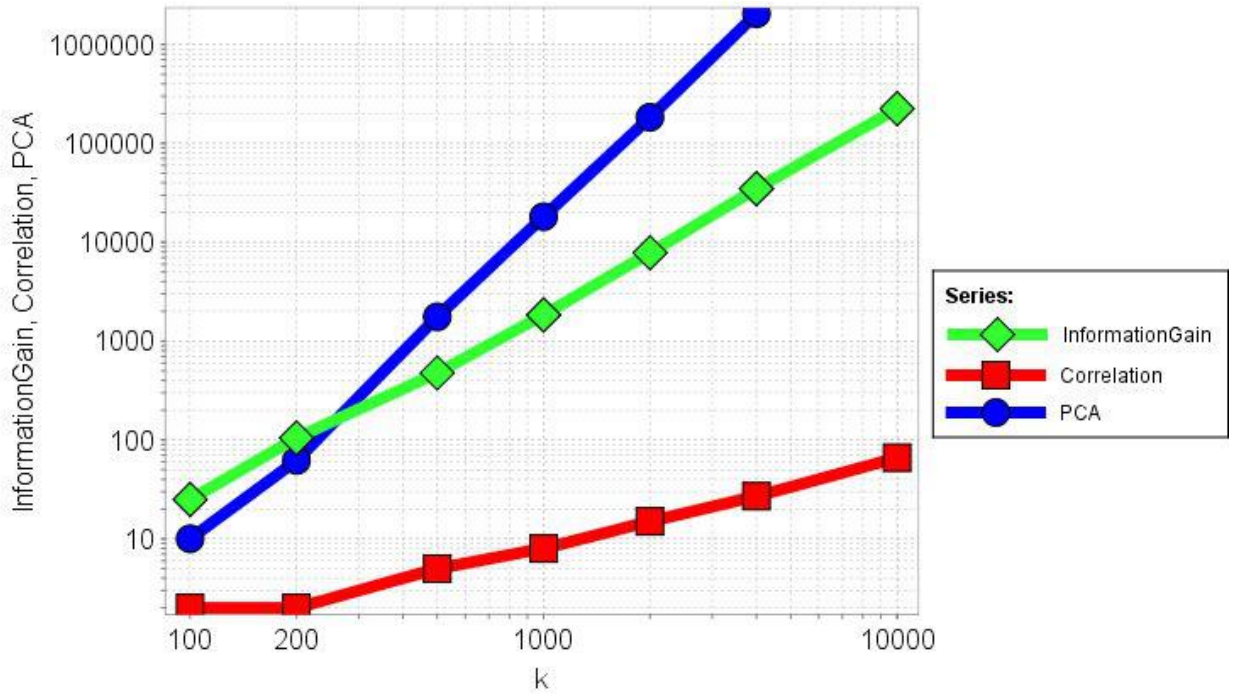
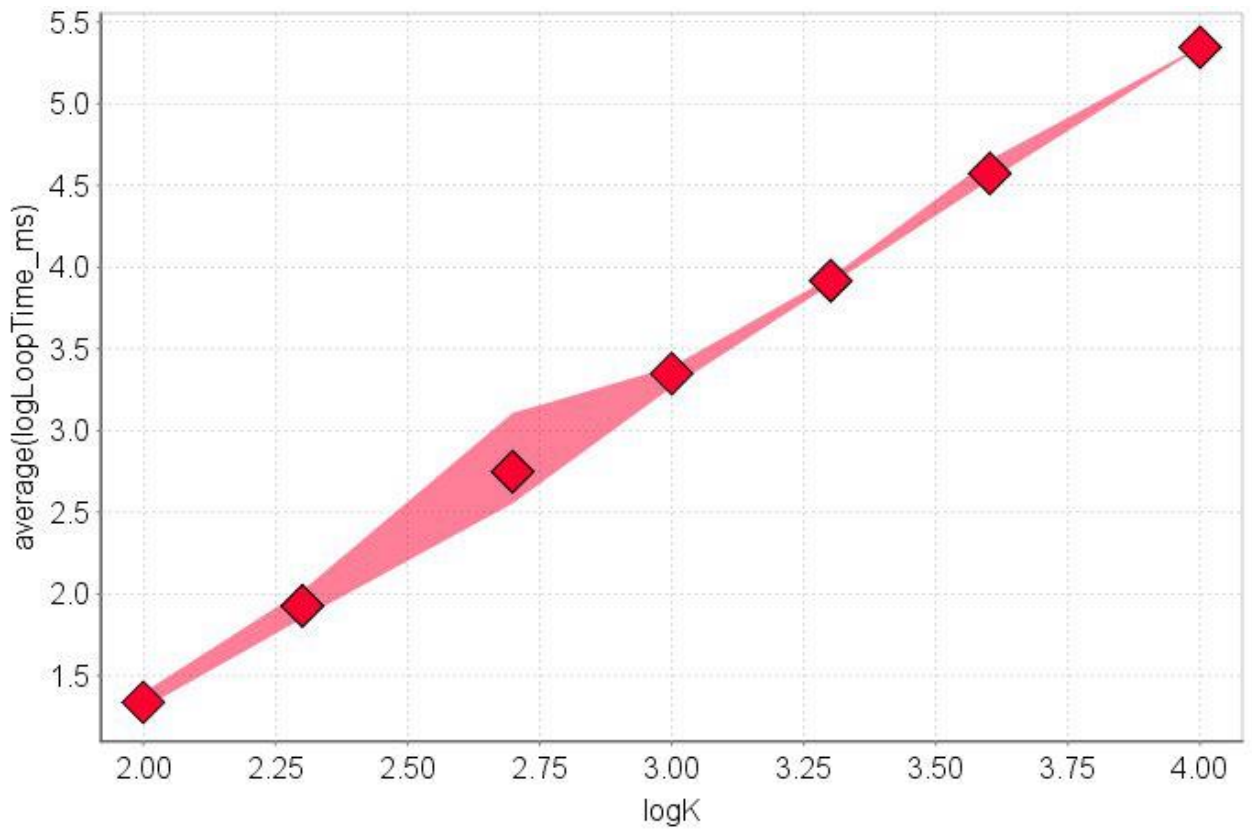
stop on too small dataset

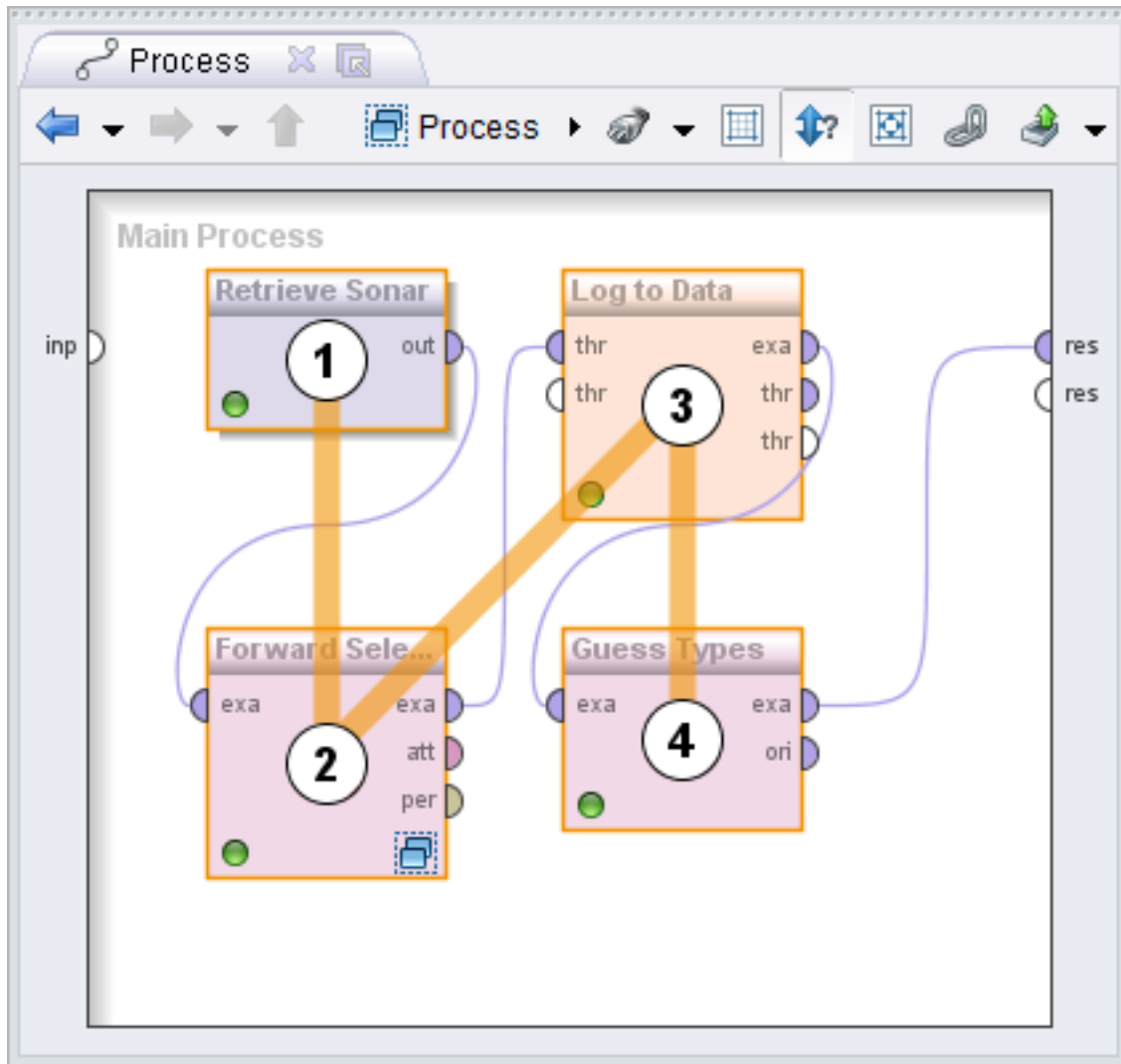
Compatibility level 5.3.000

Name	Type	Miss.	Statistics		Filter (24,176 / 24,176 attributes):	<input type="text" value="Filter"/>
<b>aa</b>	Real	0	Min 0	Max 2	Average 0.100	Deviation 0.447
<b>aback</b>	Real	0	Min 0	Max 2	Average 0.400	Deviation 0.754
<b>abaht</b>	Real	0	Min 0	Max 1	Average 0.050	Deviation 0.224
<b>abandon</b>	Real	0	Min 0	Max 6	Average 0.800	Deviation 1.576
<b>abandoned</b>	Real	0	Min 0	Max 4	Average 0.800	Deviation 1.196
<b>abandoning</b>	Real	0	Min 0	Max 1	Average 0.100	Deviation 0.308
<b>abandonment</b>	Real	0	Min 0	Max 2	Average 0.150	Deviation 0.489
<b>abandons</b>	Real	0	Min 0	Max 1	Average 0.100	Deviation 0.308
<b>abashed</b>	Real	0	Min 0	Max 1	Average 0.100	Deviation 0.308
<b>abbey</b>	Real	0	Min 0	Max 11	Average 0.600	Deviation 2.458
<b>abbots</b>	Real	0	Min 0	Max 1	Average 0.050	Deviation 0.224
<b>abby</b>	Real	0	Min 0	Max 1	Average 0.050	Deviation 0.224
<b>abdicate</b>	Real	0	Min 0	Max 4	Average 0.200	Deviation 0.894

Name	Type	Miss.	Statistics		Filter (10,467 / 10,467 attributes):	<input type="text" value="Filter"/>
<b>aback</b>	Real	0	Min 0	Max 2	Average 0.400	Deviation 0.754
<b>abandon</b>	Real	0	Min 0	Max 6	Average 0.800	Deviation 1.576
<b>abandoned</b>	Real	0	Min 0	Max 4	Average 0.800	Deviation 1.196
<b>abbey</b>	Real	0	Min 0	Max 11	Average 0.600	Deviation 2.458
<b>abdicate</b>	Real	0	Min 0	Max 4	Average 0.200	Deviation 0.894
<b>abduction</b>	Real	0	Min 0	Max 4	Average 0.200	Deviation 0.894
<b>abdullah</b>	Real	0	Min 0	Max 8	Average 0.400	Deviation 1.789
<b>abe</b>	Real	0	Min 0	Max 8	Average 0.400	Deviation 1.789
<b>abelwhite</b>	Real	0	Min 0	Max 4	Average 0.200	Deviation 0.894
<b>aberdeen</b>	Real	0	Min 0	Max 2	Average 0.200	Deviation 0.523
<b>abide</b>	Real	0	Min 0	Max 2	Average 0.450	Deviation 0.759
<b>ability</b>	Real	0	Min 0	Max 7	Average 0.500	Deviation 1.606
<b>abject</b>	Real	0	Min 0	Max 3	Average 0.200	Deviation 0.696







**Parameters**

**Forward Selection**

maximal number of attributes: 60

speculative rounds: 60

stopping behavior: without increase

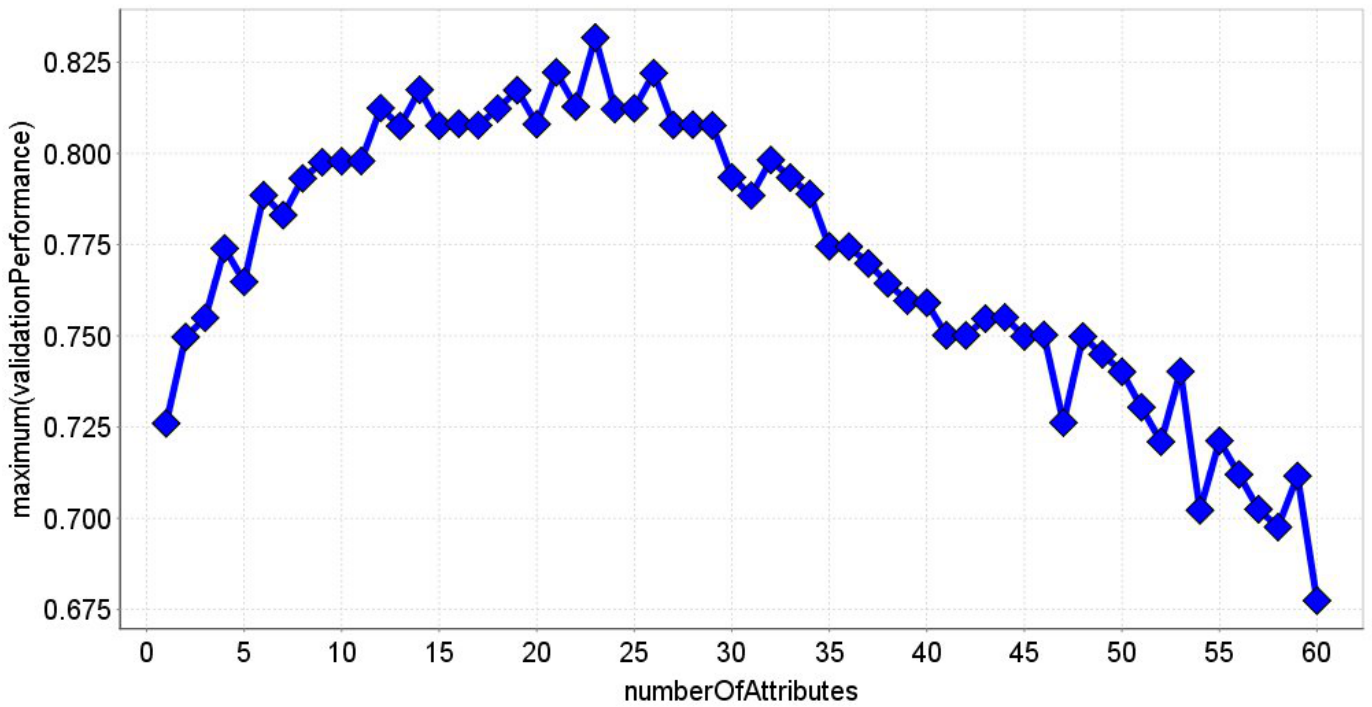
parallelize learning process

**Edit Parameter List: log**

Edit Parameter List: log  
List of key value pairs where the key is the column name and the value specifies the process value to log.

column name		value	
numberOfAttributes	Forward Selecti...	value	number of attrib...
applyCountPerformance	Performance	value	applycount
applyCountValidation	Validation	value	applycount
applyCountForwardSelection	Forward Selecti...	value	applycount
innerPerformance	Performance	value	performance
validationPerformance	Validation	value	performance
featureNames	Forward Selecti...	value	feature_names

ExampleSet (5490 examples, 0 special attributes, 7 regular attributes)					Filter (5,490 / 5,490 examples): all		
...	numberOfAttributes	applyCountPerfor...	applyCountValidati...	applyCountForwar...	innerPerformance	validationPerforma...	featureNames
1	1	1	1	1	0.652	?	attribute_1
2	1	2	1	1	0.514	?	attribute_1
3	1	3	1	1	0.580	?	attribute_1
4	1	4	2	1	0.551	0.582	attribute_2
5	1	5	2	1	0.557	0.582	attribute_2
6	1	6	2	1	0.565	0.582	attribute_2
7	1	7	3	1	0.565	0.558	attribute_3
8	1	8	3	1	0.457	0.558	attribute_3
9	1	9	3	1	0.580	0.558	attribute_3
1	1	10	4	1	0.536	0.534	attribute_4
1	1	11	4	1	0.557	0.534	attribute_4
1	1	12	4	1	0.667	0.534	attribute_4
1	1	13	5	1	0.449	0.587	attribute_5
1	1	14	5	1	0.643	0.587	attribute_5
1	1	15	5	1	0.667	0.587	attribute_5
1	1	16	6	1	0.565	0.586	attribute_6



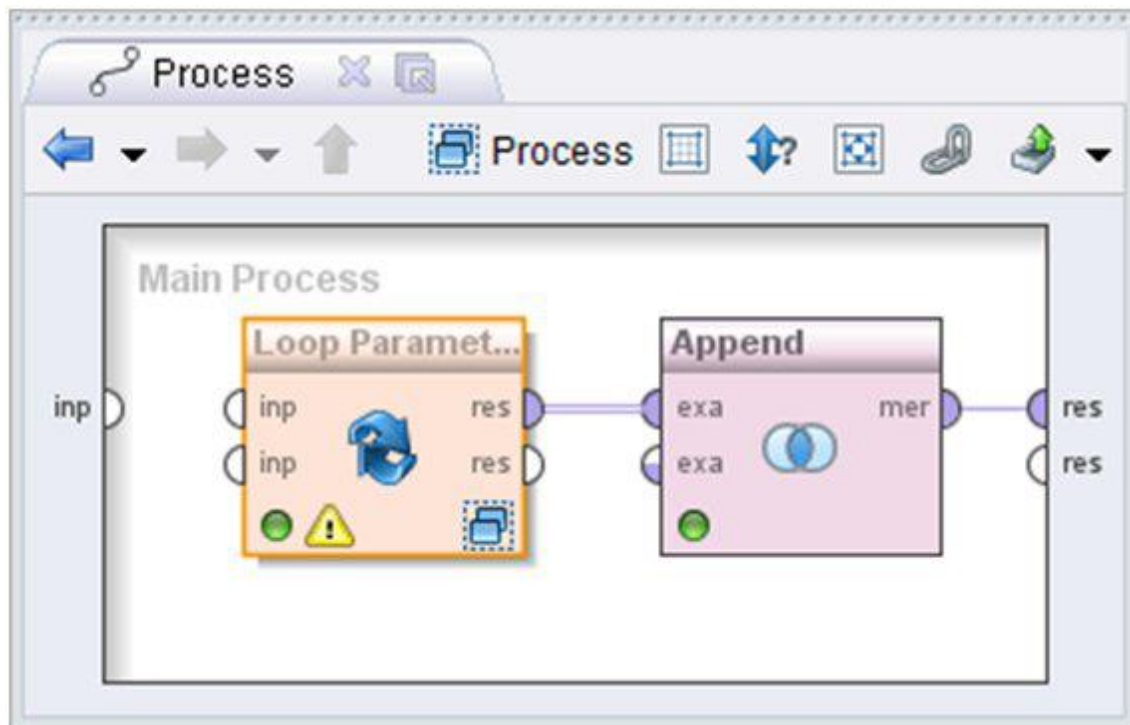
**Edit Parameter List: log**

Edit Parameter List: **log**  
List of key value pairs where the key is the column name and the value specifies the process value to log.

column name	value
Time	Neural Net

value dropdown menu:  
applycount  
applycount  
cpu-execution-time  
cpu-time  
execution-time  
looptime

Buttons: Add Entry, Remove Entry



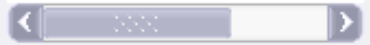
# Select Parameters: configure operator



Select Parameters: **configure operator**  
Configure this operator by means of a Wizard.

### Operators

- SetExamples (Set Macro)
- SetAttributes (Set Macro)
- Execute Process (Execute Pro
- Performance (Performance (A



### Parameters

- macro



### Selected Parameters

- SetExamples.value
- SetAttributes.value

### Grid/Range

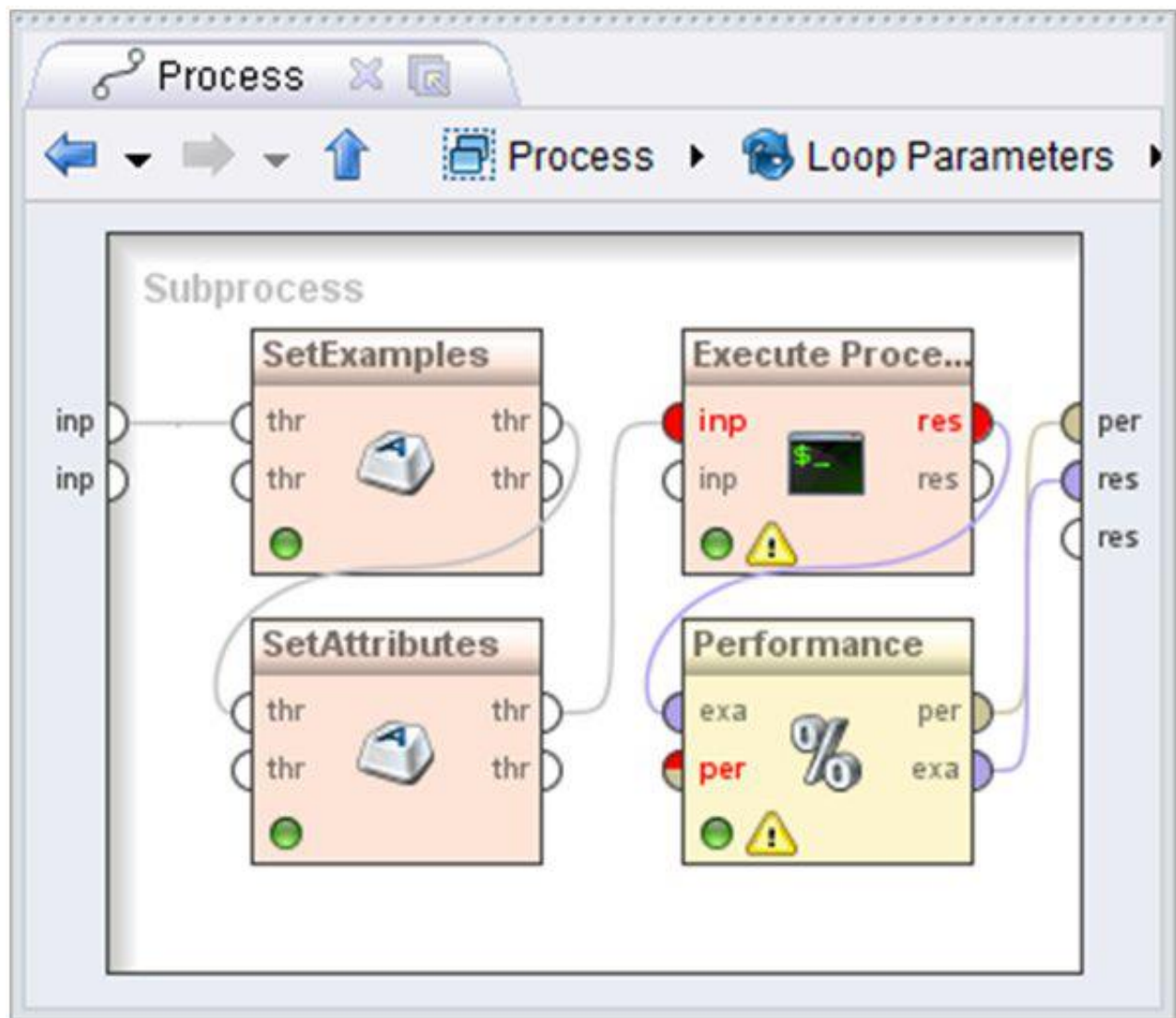
Min	Max	Steps	Scale
<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="linear"/>

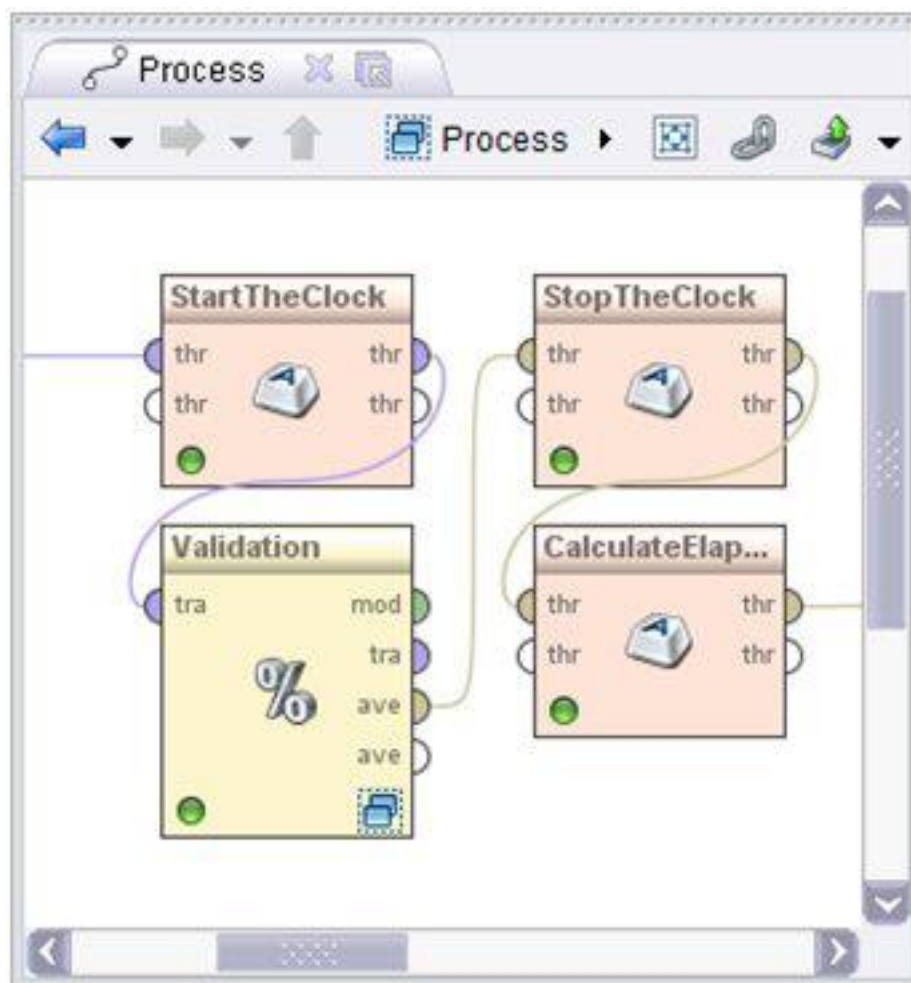
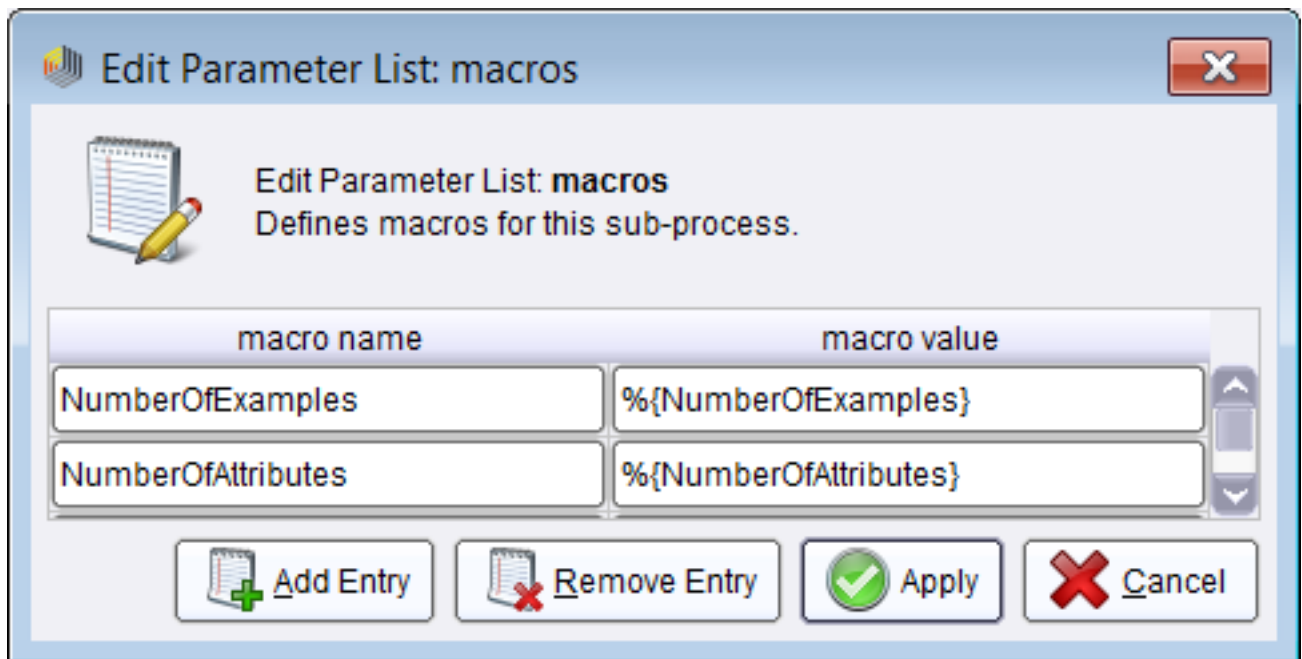
### Value List

<input type="text"/>	<input type="button" value="+"/>	10	<input type="button" value="↑"/> <input type="button" value="↓"/>
	<input type="button" value="→"/>	20	
	<input type="button" value="←"/>	30	
		5	
		15	

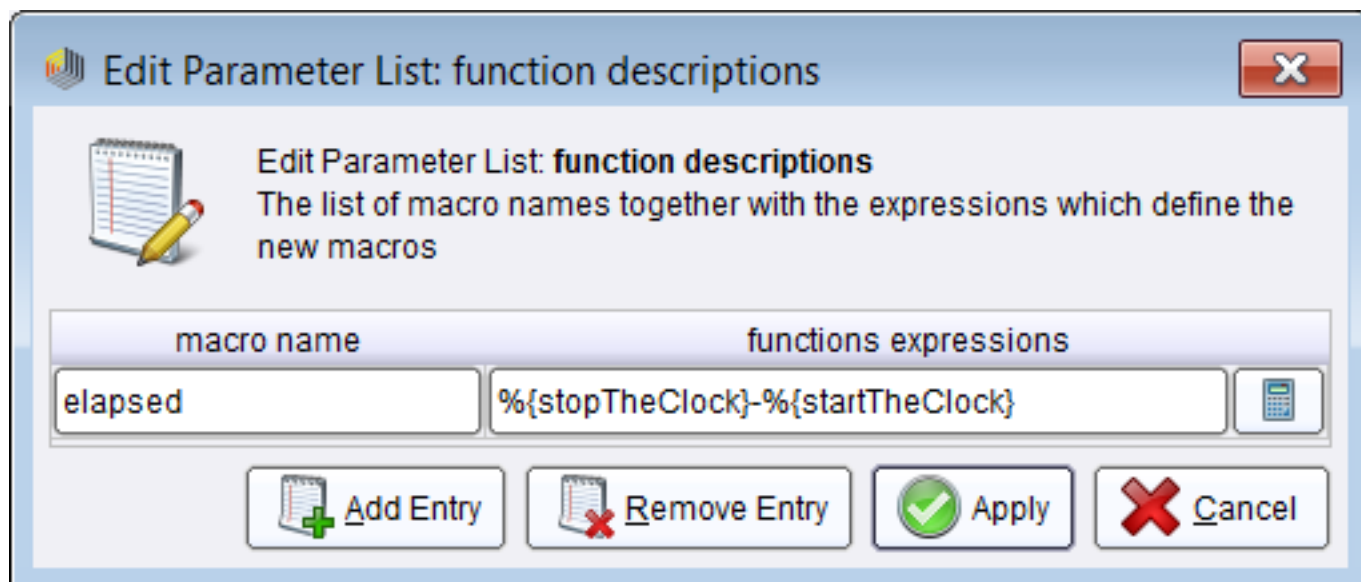
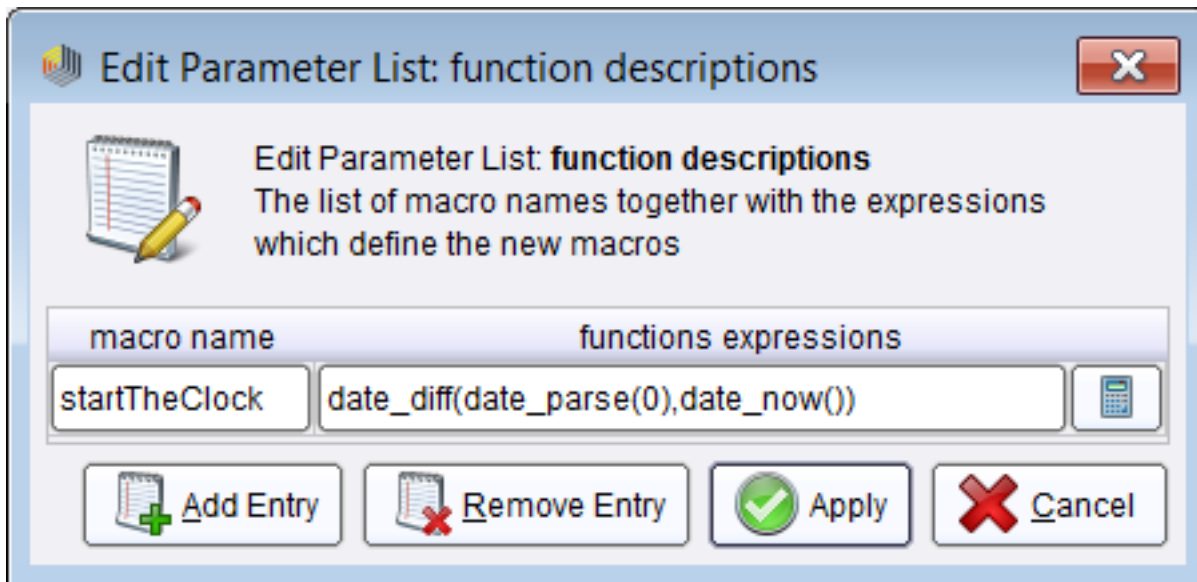
Grid  List

2 parameters / 121 combinations selected





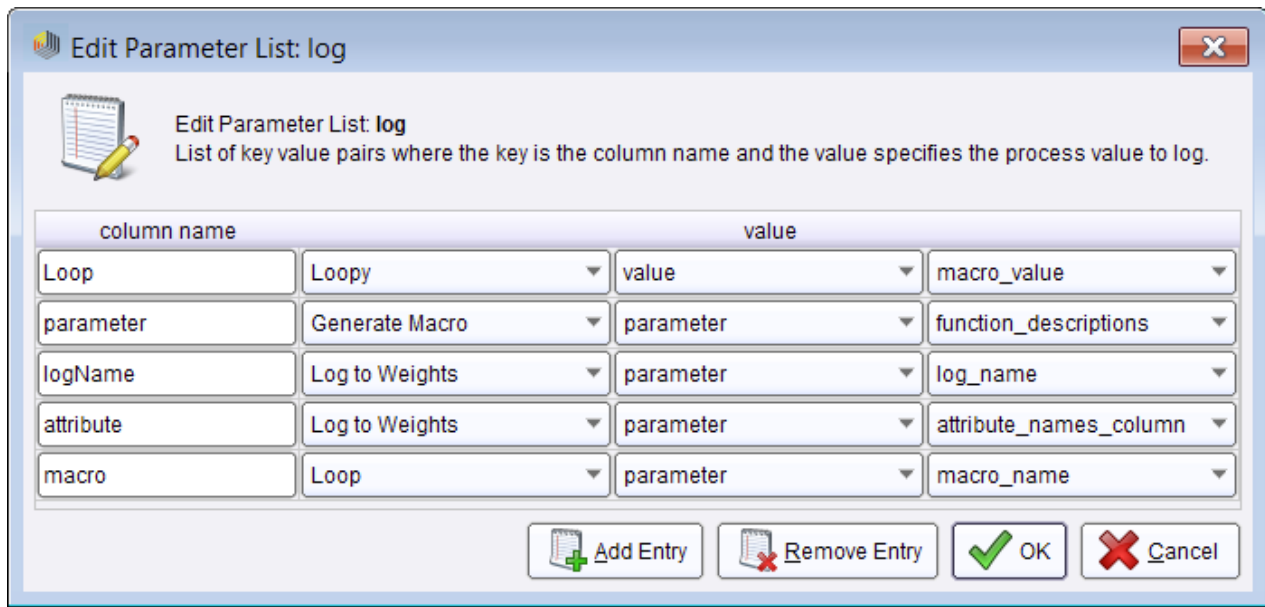





ExampleSet (121 examples, 0 special attributes, 3 regular attributes)


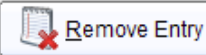
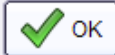

Row No.	ElapsedTime	NumberOfAttributes ▲	NumberOfExamples ▲
37	105	5	5
34	205	5	10
38	285	5	15
35	390	5	20
39	556	5	25
36	566	5	30
40	669	5	35
41	765	5	40
42	856	5	45
43	1096	5	50
44	1992	5	100



 Edit Parameter List: log

 Edit Parameter List: log  
List of key value pairs where the key is the column name and the value specifies the process value to log.

column name	value		
Loop	Loopy	value	macro_value
parameter	Generate Macro	parameter	function_descriptions
logName	Log to Weights	parameter	log_name
attribute	Log to Weights	parameter	attribute_names_column
macro	Loop	parameter	macro_name

 Add Entry
  Remove Entry
  OK
  Cancel


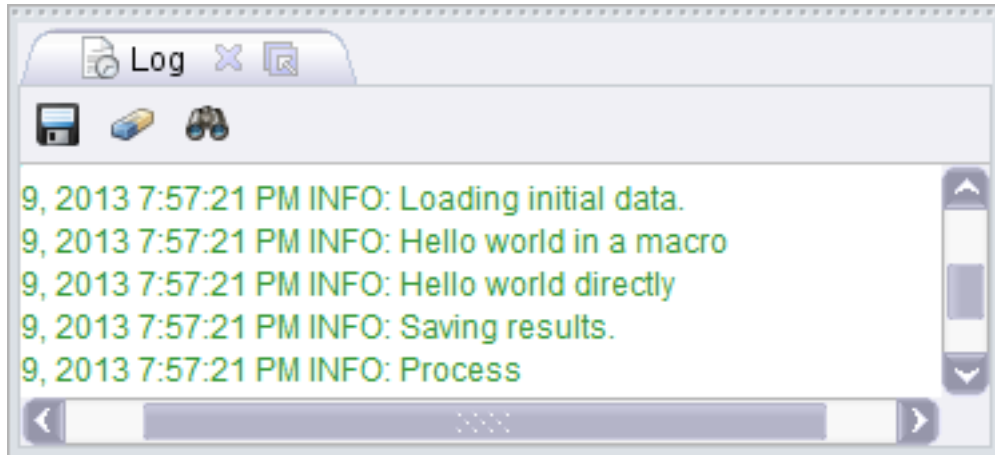
 Log

Table View  Plot View

Log (10 rows, 5 columns)

Loop	parameter	logName	attribute	macro
loop_1	Loopy□"loop_"+"1"	Log	Loop	iteration
loop_2	Loopy□"loop_"+"2"	Log	Loop	iteration
loop_3	Loopy□"loop_"+"3"	Log	Loop	iteration
loop_4	Loopy□"loop_"+"4"	Log	Loop	iteration
loop_5	Loopy□"loop_"+"5"	Log	Loop	iteration
loop_6	Loopy□"loop_"+"6"	Log	Loop	iteration
loop_7	Loopy□"loop_"+"7"	Log	Loop	iteration
loop_8	Loopy□"loop_"+"8"	Log	Loop	iteration
loop_9	Loopy□"loop_"+"9"	Log	Loop	iteration
loop_10	Loopy□"loop_"+"10"	Log	Loop	iteration



```
import com.rapidminer.tools.Ontology;
String[] strings= new String[2];
for (String macroName : operator.getProcess().macroHandler.getDefinedMacroNames()) {
    String macroValue = operator.getProcess().macroHandler.getMacro(macroName);
    strings[0] = macroName;
    strings[1] = macroValue;
    operator.logNote ("Macro name | value: " + macroName + " | " + macroValue);
}
return;
```