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material %

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Programme of WebLab97

held in association with the Jožef Stefan Institute
at Grand Hotel Toplice, Bled, Slovenia, 2-3 September 1997

Tuesday, 2nd September, 1997

9:30 Donald Michie

Introduction to the meeting. WebLab as a shared testing shed. What question has the meeting been called to consider? Walk-through of the programme and the planning agenda.

10:00 Matthew Webster

IBM's Java mission. Description of corporate internet requirements. Commonalities and divergencies from scientific requirements.

10:30 Questions and discussion

11:00 Coffee

11:20 Matthew Webster and Stephen Blackheath

Java language, Java Development Kit, Java Beans, Common object models.

12:20 Questions and discussion

12:45 Lunch

14:15 Java-less approaches:

14:15 Nada Lavrač

ILPNET. Downloadable software. Cross-platform issues. Comparative testing. (<http://www-ai.ijs.si/ilpnet.html>)

14:30 Blaž Zupan

Issues in the development of an integrated Machine Learning environment, using a modular, object-oriented approach.

14:45 Carl Rasmussen

DELVE - Data for Evaluating Learning in Valid Experiments. Experiences with a Web archive for comparing the predictive performance of statistical learning algorithms.
(<http://www.cs.utoronto.ca/~delve>)

15:15 Specific questions and discussions on the above three presentations

15:30 General discussion

How far can such facilities be pushed, short of Java-based solutions?

16:00 Tea

16:20 Matthew Webster, Stephen Blackheath

Recap of Java language and library facilities of special relevance to the above.

16:50 Adjourn for demos

including Co-operative Agents video (**Hyacinth Nwana**), Test your own (a) rule-discovery, (b) rule-comprehension (**Rupert Parson**), BOT-WORLD (**Claude Sammut**).

18:15 Jožef Stefan Evening Discourse

Chair: **Prof. Ivan Bratko**
Lecturer: **Prof. J.R. Quinlan**
Title: **Boosting Inductive Learning Systems**

19:15 Questions and Discussion

19:40 Depart for Vila Bled Restaurant

20:00 Banquet


Welcome to foreign visitors from **Dr. Tomaž Kalin**, Deputy Director, Jožef Stefan Institute.

```
bayes -pp (discretize method=equiN intervals=4)
```

```
id3 -pp (ignore OP_TIME HEALTH) -minex 10 -prune (m  
m=5) -minleaf 20 -b
```

```
id3 -pp (ignore OP_TIME PATIENT COMPLICATIONS REHAB  
HEALTH ENDOPROSTH) -minex 10 -prune (m m=5)  
-minleaf 20 -b
```

 ba.alg


compare ba.alg -F implants.tab -sampler cv -statistics (order
ROC classvalue=Well)

```
import orange
data = orange.ExampleTable('voting.tab')
print 'Instances:', len(data)
print 'Attributes:', len
```

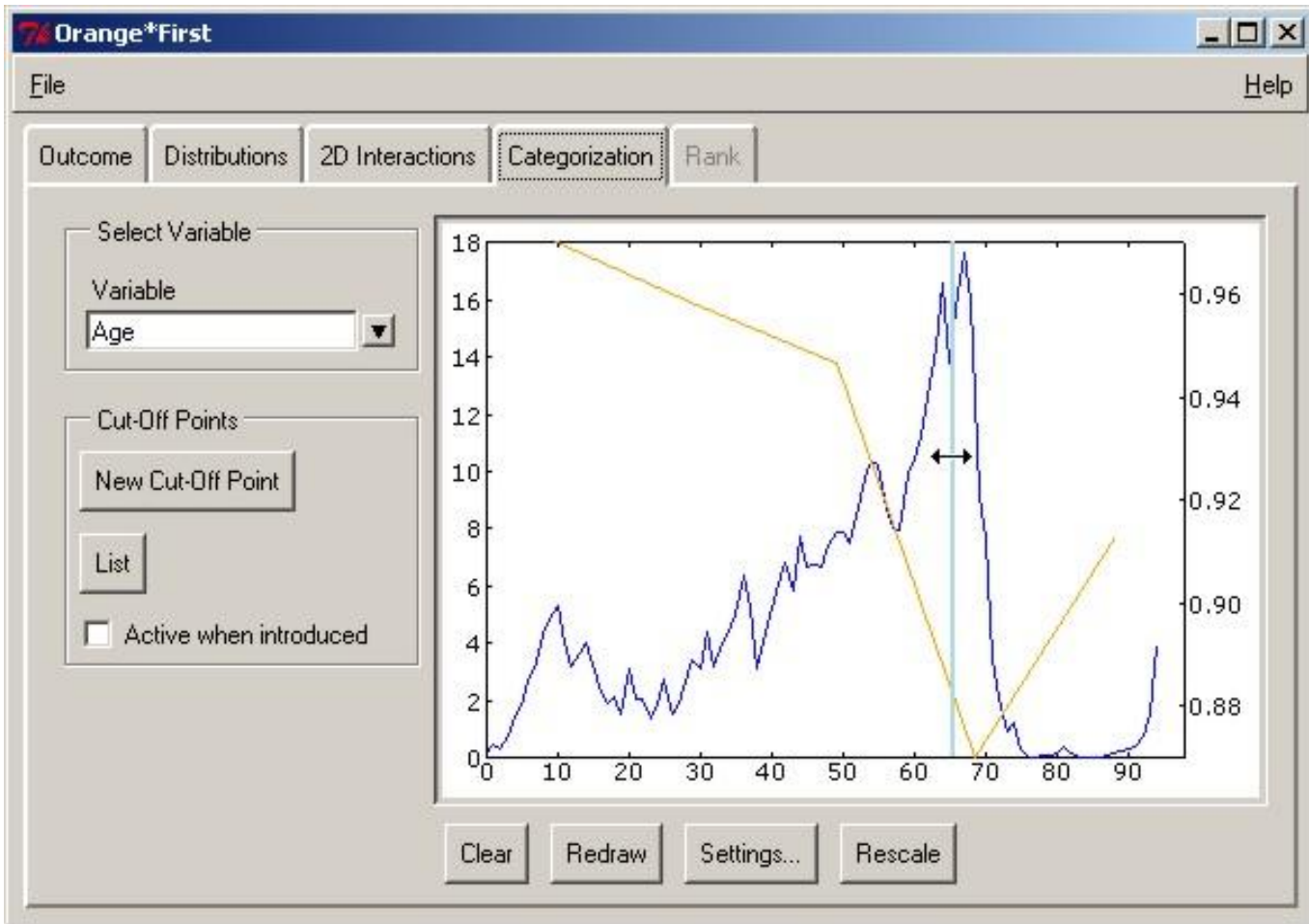
```
Instances: 435
Attributes: 16
```

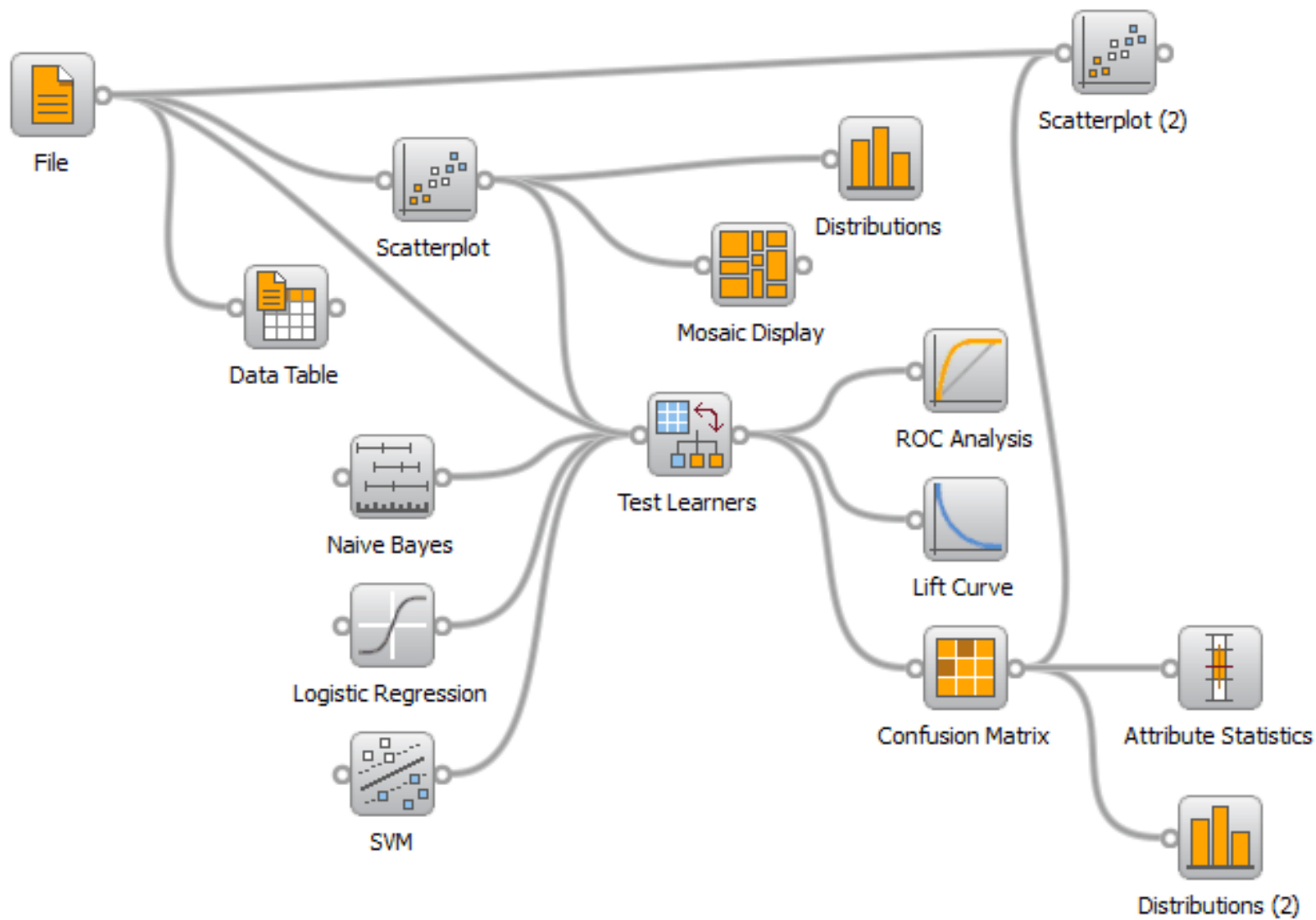
```
for i in range(5):
    print model(data[i]), \
        'originally', data[i].getclass()
```

```
republican originally republican
republican originally republican
republican originally democrat
democrat originally democrat
democrat originally democrat
```

```
p = model(data[2], orange.GetProbabilities)
print data.domain.classVar.values[0], ':\n', p[0]
```

```
republican :
0.995421469212
```





Default discretization

- Leave continuous
 Entropy-MDL discretization
 Equal-frequency discretization
 Equal-width discretization
 Number of intervals (for equal width/frequency)
 3
 Remove continuous attributes

Individual attribute treatment

- Use default discretization for all attributes
 Explore and set individual discretizations
 Set discretization of all attributes to
 Custom 1 Custom 2 Custom 3

Class discretization

- Equal-frequency discretization
 Equal-width discretization
 Number of intervals
 3
 Custom
- Current splits:
- Output original class
(Widget always uses discretized class internally.)

Commit

- Commit automatically

Report

Individual attribute settings

- age: 54 (custom 1 -> entropy)
 rest SBP: <removed> (custom 1 -> entropy)
 cholesterol: <removed> (custom 1 -> entropy)
 max HR: 147 (custom 1 -> entropy)
 ST by exercise: 1.6 (custom 1 -> entropy)
 major vessels colored: 0 (custom 1 -> entropy)

- Default
 Leave continuous
 Entropy-MDL discretization
 Equal-frequency discretization
 Equal-width discretization
 Num. of intervals: 4
 Remove attribute
 Custom 1
 Custom 2
 Custom 3

Split gain measure

- Information gain
 Show discretization gain
 Show lookahead gain

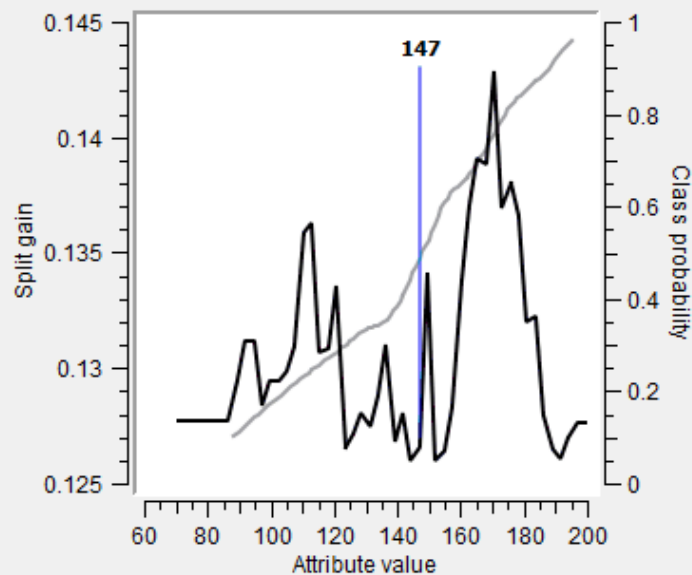
Target class

- 0
 Show target class probability
 Show rug (may be slow)

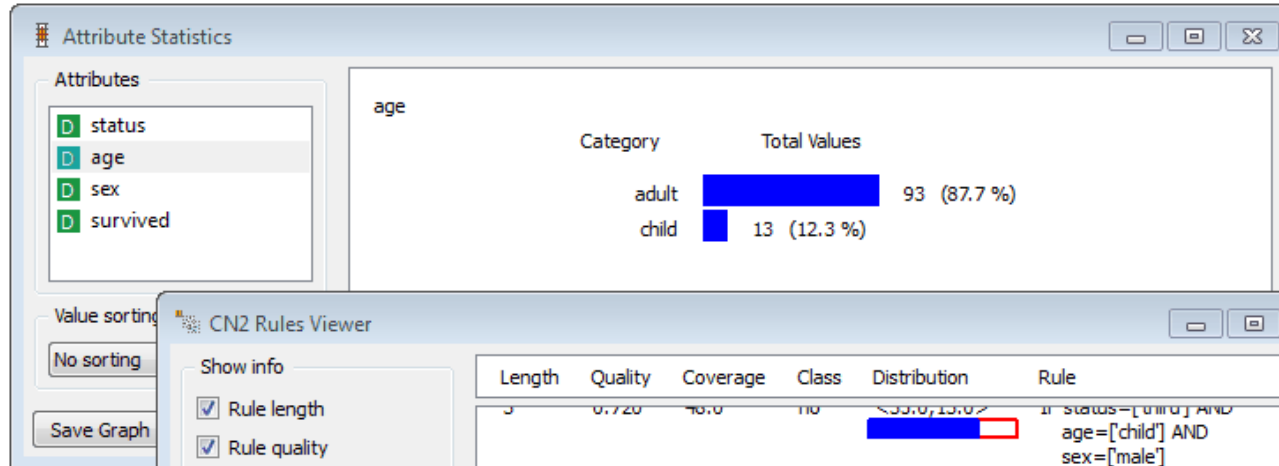
Editing

- Snap to grid
 Apply on the fly

Apply



Report Graph



CN2 Rules Viewer

Show info

- Rule length
- Rule quality
- Coverage
- Predicted class
- Distribution
- Distribution(Bar)

Sorting: No sorting

Output

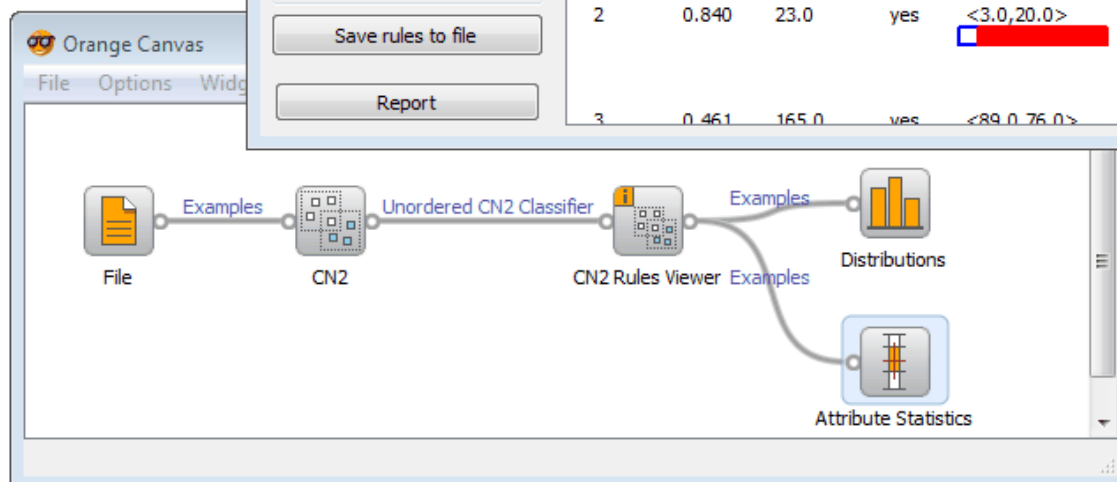
- Commit on change
- Selected attributes only

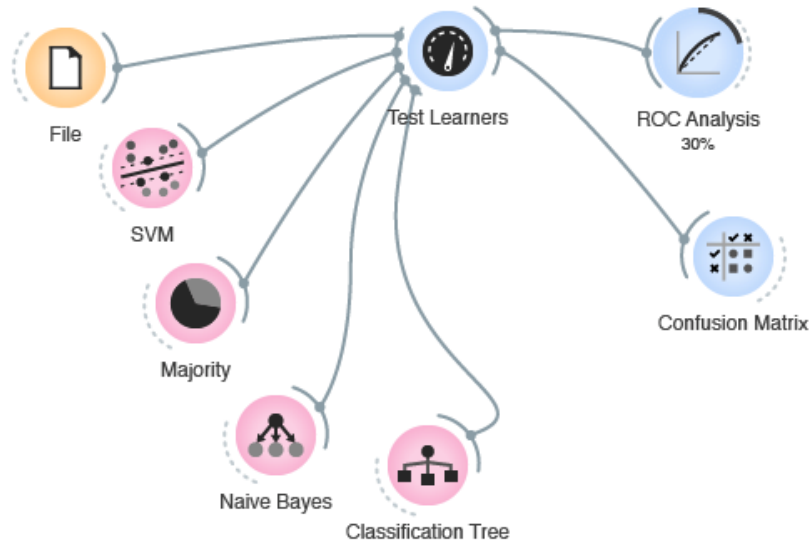
Commit

Save rules to file

Report

Length	Quality	Coverage	Class	Distribution	Rule
3	0.720	40.0	no	<35.0,13.0>	IF status=[third] AND age=[child] AND sex=[male] THEN survived=no
2	0.966	145.0	yes	<4.0,141.0>	IF sex=[female] AND status=[first] THEN survived=yes
2	0.962	24.0	yes	<0.0,24.0>	IF status=[second] AND age=[child] THEN survived=yes
2	0.857	5.0	yes	<0.0,5.0>	IF status=[first] AND age=[child] THEN survived=yes
2	0.853	93.0	yes	<13.0,80.0>	IF sex=[female] AND status=[second] THEN survived=yes
2	0.840	23.0	yes	<3.0,20.0>	IF sex=[female] AND status=[crew] THEN survived=yes
3	0.461	165.0	yes	<89.0,76.0>	IF status=[third] AND





	Data
	Visualize
	Classify
Regression	
	Mean
	Linear Regression
	k Nearest Neighbo...
	Earth/Mars
	SVM Regression
	Regression Tree
	Random Forest...
	Regression Tree Graph
	Pade
Evaluate	
Unsupervised	
Associate	
Bioinformatics	

Data Table

Data Table widget takes one or more data sets on its input, and presents them in a spreadsheet format. Widget supports sorting by attribute values (click on the attribute name in the header row).

[more...](#)





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