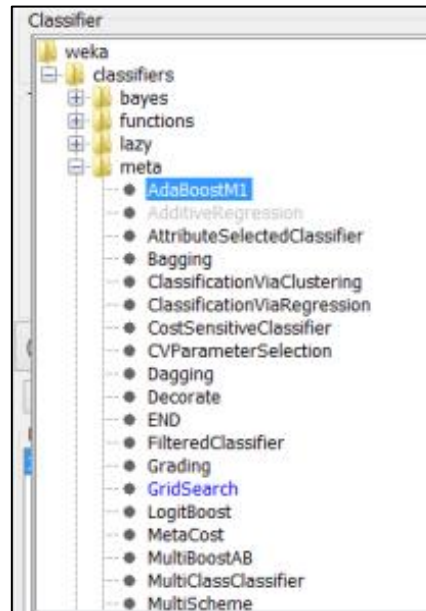


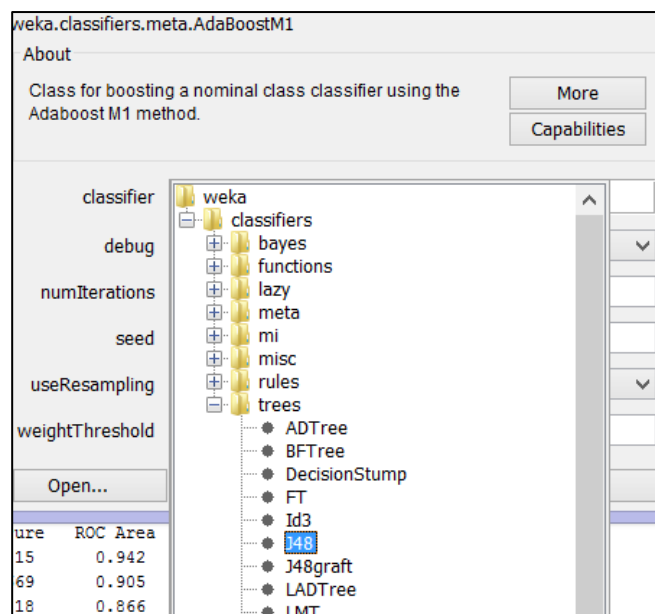
Colour classification example

Training:

Classifier: AdaBoost



Base classifier: Decision tree



Parameters:

Classifier:

classifier	Choose	J48 -C 0.25 -M 2
debug	False	▼
numIterations	2000	
seed	1	
useResampling	False	▼
weightThreshold	100	

Base classifier:

binarySplits	False	▼
confidenceFactor	0.25	
debug	False	▼
minNumObj	2	
numFolds	3	
reducedErrorPruning	False	▼
saveInstanceData	False	▼
seed	1	
subtreeRaising	True	▼
unpruned	False	▼
useLaplace	False	▼

Training:

Test options	
<input type="radio"/> Use training set	
<input type="radio"/> Supplied test set	Set...
<input checked="" type="radio"/> Cross-validation	Folds 10
<input type="radio"/> Percentage split	% 66
More options...	

Results:

=== Summary ===

Correctly Classified Instances	19917	64.2297 %
Incorrectly Classified Instances	11092	35.7703 %
Kappa statistic	0.5132	
Mean absolute error	0.1619	
Root mean squared error	0.2706	
Relative absolute error	74.5349 %	
Root relative squared error	82.0914 %	
Total Number of Instances	31009	

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	ROC Area	Class
	0.792	0.025	0.84	0.792	0.815	0.942	1
	0.623	0.029	0.722	0.623	0.669	0.905	2
	0.803	0.246	0.649	0.803	0.718	0.866	3
	0.125	0.021	0.288	0.125	0.174	0.724	4
	0.584	0.153	0.581	0.584	0.583	0.809	5
	0.194	0.008	0.327	0.194	0.244	0.688	6
	0.1	0.013	0.219	0.1	0.137	0.74	7
Weighted Avg.	0.642	0.138	0.621	0.642	0.625	0.848	

=== Confusion Matrix ===

a	b	c	d	e	f	g	<-- classified as
3504	32	501	55	291	26	14	a = 1
12	2093	679	22	467	45	44	b = 2
204	230	9017	220	1352	35	166	c = 3
112	49	772	250	755	33	30	d = 4
314	413	2196	289	4817	81	134	e = 5
1	31	194	10	275	125	8	f = 6
24	50	531	23	335	37	111	g = 7

Annotations:

- Accuracy: Points to the 'Correctly Classified Instances' row in the Summary table.
- ROC curves: Points to the 'ROC Area' column in the Detailed Accuracy By Class table.
- Not very well classified: Points to the 'ROC Area' value of 0.688 for Class 6.
- Confusion matrix: Points to the Confusion Matrix table.

Test:

Test options

☐ Use training set

☒ Supplied test set test_colour.arff

☐ Cross-validation Folds

☐ Percentage split %

Results:

=== Summary ===							
Correctly Classified Instances	4642		60.1451 %				
Incorrectly Classified Instances	3076		39.8549 %				
Kappa statistic	0.475						
Mean absolute error	0.1674						
Root mean squared error	0.282						
Relative absolute error	76.3148 %						
Root relative squared error	84.764 %						
Total Number of Instances	7718						
=== Detailed Accuracy By Class ===							
	TP Rate	FP Rate	Precision	Recall	F-Measure	ROC Area	Class
	0.744	0.026	0.843	0.744	0.791	0.916	1
	0.618	0.032	0.714	0.618	0.663	0.877	2
	0.725	0.204	0.636	0.725	0.678	0.846	3
	0.147	0.041	0.243	0.147	0.183	0.679	4
	0.582	0.186	0.535	0.582	0.558	0.778	5
	0.153	0.011	0.234	0.153	0.185	0.649	6
	0.107	0.029	0.092	0.107	0.099	0.718	7
Weighted Avg.	0.601	0.129	0.596	0.601	0.595	0.821	
=== Confusion Matrix ===							
a	b	c	d	e	f	g	<-- classified as
904	7	105	31	138	14	16	a = 1
4	545	105	31	147	19	31	b = 2
42	76	1845	108	370	8	97	c = 3
24	13	217	93	251	17	17	d = 4
95	109	485	111	1208	19	48	e = 5
0	4	49	1	77	25	7	f = 6
3	9	93	7	66	5	22	g = 7