

21 – File Import (to import score data set file)

1

After the file importation, it is necessary to define variables' roles and levels.

2

3

Name	Role	Level	Rep
SPCork	Target	Binary	No
ExpressedPref	Rejected	Nominal	No
NPS	Rejected	Interval	No
Dayswus	Input	Interval	No
Education	Input	Nominal	No
Age	Input	Interval	No
Drywh	Input	Interval	No
Dryred	Input	Interval	No
Freq	Input	Interval	No
Income	Input	Interval	No
Dessert	Input	Interval	No
Exotic	Input	Interval	No
Kidhome	Input	Binary	No

4

Property Value

General

Node ID FIMPORT2

Imported Data

Exported Data

Notes

Train

Variables

Import File

Maximum Rows to Imp 1000000

Maximum Columns to 10000

Delimiter

Name Row Yes

Number of Rows to Sk 0

Guessing Rows 500

File Location Local

File Type xlsx

Advanced Advisor No

Rerun No

Score

Role Score

Report

Summarize No

Status

Create Time 24-05-2021 21:28

Run ID 2e848e86-9a80-44bc

Last Error

22 - Score

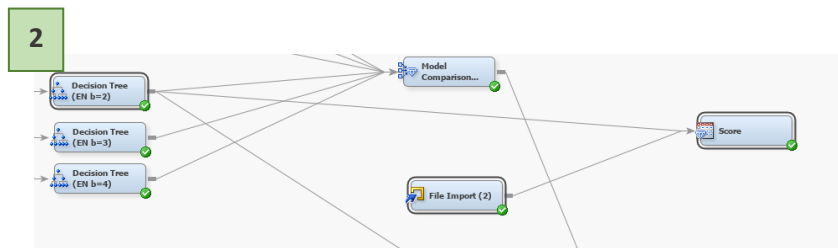
1

Sample Explore Modify Model Assess Utility

ME - Predictive Modeling Diagram

Score

Import the Score node from the Assess tab and link it to the new File Import node and also to the node that represents the prediction model that you are using.



This node represents the end of our work on SAS Miner.

A - Choose the percentage of customers to contact.

1 Export the data from the node that represents the best model to use (decision tree, regression or neural network)

Port	Table	Role	Data Exists
TRAIN	EMWSS.Tree3_TRAIN	Train	Yes
VALIDATE	EMWSS.Tree3_VALIDATE	Validate	Yes
TEST	EMWSS.Tree3_TEST	Test	No
SCORE	EMWSS.Tree3_SCORE	Score	No
TRANSACTION	EMWSS.Tree3_TRANSACT...	Transaction	No
TREE	EMWSS.Tree3_EMTREE	Tree	Yes

EMWSS.Tree3_VALIDATE																				
	Observation Number	Custid	Dayweek	Age	Education	Income	Kidhome	Teenhome	Freq	Recency	Monetary	LTV	Pendal	Dryed	Sweetred	Drywh	Sweetwh	Dessert	Exotic	WebPurchase
1	27.0	Cut Copy Paste		67.0	BachelorDegree	33542.0	0.0	0.0	29.0	60.0	767.0	225.0	3.0	21.0	0.0	33.0	20.0	26.0	36.0	17.0
2	3.0		53.0	BachelorDegree	33542.0	1.0	0.0	2.0	69.0	29.0	-5.0	82.0	37.0	12.0	36.0	9.0	6.0	31.0	75.0	
3	6.0		62.0	MasterDegree	83793.0	1.0	1.0	25.0	3.0	1145.0	60.0	43.0	96.0	0.0	4.0	0.0	0.0	0.0	3.0	53.0
4	8.0	Sort Column Move Column		62.0	MasterDegree	97411.0	0.0	1.0	25.0	85.0	1149.0	357.0	3.0	63.0	8.0	20.0	7.0	2.0	5.0	44.0
5	9.0		28.0	MasterDegree	49648.0	1.0	0.0	10.0	4.0	294.0	34.0	30.0	53.0	3.0	36.0	1.0	8.0	7.0	70.0	
6	10.0	Hide Column		41.0	BachelorDegree	62900.0	0.0	1.0	2.0	25.0	28.0	10.0	12.0	49.0	9.0	18.0	3.0	21.0	16.0	46.0
7	16.0		34.0	MasterDegree	52823.0	1.0	0.0	2.0	9.0	42.0	10.0	26.0	85.0	1.0	13.0	1.0	1.0	5.0	30.0	
8	24.0	Hold Column Hold Row		60.0	MasterDegree	85346.0	0.0	0.0	21.0	60.0	888.0	427.0	2.0	35.0	15.0	21.0	24.0	5.0	7.0	39.0
9	29.0		77.0	PHD	107690.0	0.0	0.0	34.0	24.0	1729.0	506.0	1.0	62.0	3.0	31.0	3.0	2.0	5.0	18.0	
10	33.0	Export To Excel Import From Excel		58.0	PHD	92487.0	0.0	1.0	25.0	36.0	1153.0	623.0	6.0	81.0	2.0	13.0	2.0	2.0	2.0	28.0
11	34.0		78.0	BachelorDegree	114761.0	0.0	0.0	35.0	37.0	1796.0	598.0	0.0	45.0	12.0	37.0	4.0	2.0	6.0	16.0	
12	39.0		47.0	BachelorDegree	69428.0	0.0	1.0	10.0	95.0	300.0	41.0	28.0	88.0	0.0	7.0	3.0	2.0	49.0	57.0	
13	41.0	2958.0	596.0	34.0	BachelorDegree	54527.0	1.0	0.0	2.0	85.0	29.0	2.0	37.0	28.0	9.0	35.0	14.0	14.0	44.0	72.0

2 On excel, calculate the lift, %response, profit, loss and ROI to decide the percentage of customers to contact.

a

B	X	AT	AU
Custid	SPCork	Predicted: SPCork=0	Predicted: SPCork=1
2965	1	0	1
2927	1	0	1
2833	1	0	1
2826	0	0	1
2790	0	0	1
2694	1	0	1
2508	1	0	1
2491	0	0	1
2477	0	0	1
2234	1	0	1
2219	0	0	1
2078	0	0	1
2036	1	0	1
1901	0	0	1
1712	1	0	1
1675	1	0	1
1662	1	0	1
1616	1	0	1
1387	0	0	1

Hide the columns that are not relevant and order the observations by the higher values for the column Predicted:Target=1.

b

	Average	Count	Sum
	0,113240418	574	65

Selecting the Predicted:Target=1 column you obtain the % of individuals that bought the product, the total number of individuals in the data set and the number of individual that bought the product.

c

=AVERAGE(X2:X575)

	B	X	AT	AU	BC	BD	BE	BF	BG	BH	BI	BJ	BK
	Custid	SPCork	Predicted: SPCork=0	Predicted: SPCork=1						%response	profit	loss	ROI
2965	1	0	1				n	depth	lift				
2927	1	0	1					5%					
2833	1	0	1					10%					
2826	0	0	1					15%					
2790	0	0	1					20%					
2694	1	0	1					25%					
2508	1	0	1					30%					
2491	0	0	1										
2477	0	0	1										
2234	1	0	1					574	100%	11,32%			
2219	0	0	1										

First, calculate the %response for the total numbers of customers in the validation dataset and replicate the calculation for each percentage group (5%, 10%,).

VLOOKUP

=B\$10*BF3

	B	X	AT	AU	BC	BD	BE	BF	BG	BH	BI	BJ	BK
	Custid	SPCork	Predicted: SPCork=0	Predicted: SPCork=1						%response	profit	loss	ROI
2965	1	0	1					depth	lift				
2927	1	0	1					5%					
2833	1	0	1					10%					
2826	0	0	1					15%					
2790	0	0	1					20%					
2694	1	0	1					25%					
2508	1	0	1					30%					
2491	0	0	1										
2477	0	0	1										
2234	1	0	1					574	100%	11,32%			
2219	0	0	1										

BH3

=AVERAGE(X2:X30)

	B	X	AT	AU	BC	BD	BE	BF	BG	BH	BI	BJ	BK
	Custid	SPCork	Predicted: SPCork=0	Predicted: SPCork=1						%response	profit	loss	ROI
2965	1	0	1				n	depth	lift				
2927	1	0	1					29	5%	65,52%			
2833	1	0	1					57	10%				
2826	0	0	1					86	15%	54,7%			
2790	0	0	1					115	20%	44,3%			
2694	1	0	1					144	25%	36,8%			
2508	1	0	1					172	30%	30,8%			
2491	0	0	1										
2477	0	0	1					574	100%	11,32%			
2234	1	0	1										
2219	0	0	1										

d

=BH3/BH\$10

	B	X	AT	AU	BC	BD	BE	BF	BG	BH	BI	BK
1	Custid	SPCork	Predicted: SPCork=0	Predicted: SPCork=1								
2	2965	1	0	1			n	depth	lift	%response	profit	loss
3	2927	1	0	1			29	5%	5,8	65,52%	150,43	57,40
4	2833	1	0	1			57	10%	5,7	64,91%	298,08	114,80
5	2826	0	0	1			86	15%	4,8	54,7%	376,44	172,20
6	2790	0	0	1			115	20%	3,9	44,3%	407,29	229,60
7	2694	1	0	1			144	25%	3,3	36,8%	422,53	287,00
8	2508	1	0	1			172	30%	2,7	30,8%	424,49	344,40
9	2491	0	0	1			---	---	---	---	---	---
10	2477	0	0	1			574	100%	---	11,32%	8	2
11	2234	1	0	1								
12	2219	0	0	1								

Calculate the lift for each group.

e

=BE3*BH3*BIS10

	B	X	AT	AU	BC	BD	BE	BF	BG	BH	BI	BK
1	Custid	SPCork	Predicted: SPCork=0	Predicted: SPCork=1								
2	2965	1	0	1			n	depth	lift	%response	profit	loss
3	2927	1	0	1			29	5%	5,8	65,52%	150,43	57,40
4	2833	1	0	1			57	10%	5,7	64,91%	298,08	114,80
5	2826	0	0	1			86	15%	4,8	54,7%	376,44	172,20
6	2790	0	0	1			115	20%	3,9	44,3%	407,29	229,60
7	2694	1	0	1			144	25%	3,3	36,8%	422,53	287,00
8	2508	1	0	1			172	30%	2,7	30,8%	424,49	344,40
9	2491	0	0	1			---	---	---	---	---	---
10	2477	0	0	1			574	100%	---	11,32%	8	2
11	2234	1	0	1								
12	2219	0	0	1								

Calculate the profit for each group.

In this example, 8 represents the price of the product.

d

=BE3*BIS10

	B	X	AT	AU	BC	BD	BE	BF	BG	BH	BI	BK
1	Custid	SPCork	Predicted: SPCork=0	Predicted: SPCork=1								
2	2965	1	0	1			n	depth	lift	%response	profit	loss
3	2927	1	0	1			29	5%	5,8	65,52%	150,43	57,40
4	2833	1	0	1			57	10%	5,7	64,91%	298,08	114,80
5	2826	0	0	1			86	15%	4,8	54,7%	376,44	172,20
6	2790	0	0	1			115	20%	3,9	44,3%	407,29	229,60
7	2694	1	0	1			144	25%	3,3	36,8%	422,53	287,00
8	2508	1	0	1			172	30%	2,7	30,8%	424,49	344,40
9	2491	0	0	1			---	---	---	---	---	---
10	2477	0	0	1			574	100%	---	11,32%	8	2
11	2234	1	0	1								
12	2219	0	0	1								

Calculate the loss for each group.

In this example, 2 represents the contact cost.

e

=BI3-BJ3

	B	X	AT	AU	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	Custid	SPCork	Predicted: SPCork=0	Predicted: SPCork=1									
2	2965	1	0	1			n	depth	lift	%response	profit	loss	ROI
3	2927	1	0	1			29	5%	5,8	65,52%	150,43	57,40	93,03
4	2833	1	0	1			57	10%	5,7	64,91%	298,08	114,80	183,28
5	2826	0	0	1			86	15%	4,8	54,7%	376,44	172,20	204,24
6	2790	0	0	1			115	20%	3,9	44,3%	407,29	229,60	177,69
7	2694	1	0	1			144	25%	3,3	36,8%	422,53	287,00	135,53
8	2508	1	0	1			172	30%	2,7	30,8%	424,49	344,40	80,09
9	2491	0	0	1			---	---	---	---	---	---	---
10	2477	0	0	1			574	100%	---	11,32%	8	2	
11	2234	1	0	1									
12	2219	0	0	1									

Calculate the ROI value for each group.

The goal is to choose the percentage of customers that maximizes the ROI.

BF13

=B000*BF5

	B	X	AT	AU	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	Custid	SPCork	Predicted: SPCork=0	Predicted: SPCork=1									
2	2965	1	0	1			n	depth	lift	%response	profit	loss	ROI
3	2927	1	0	1			29	5%	5,8	65,52%	150,43	57,40	93,03
4	2833	1	0	1			57	10%	5,7	64,91%	298,08	114,80	183,28
5	2826	0	0	1			86	15%	4,8	54,7%	376,44	172,20	204,24
6	2790	0	0	1			115	20%	3,9	44,3%	407,29	229,60	177,69
7	2694	1	0	1			144	25%	3,3	36,8%	422,53	287,00	135,53
8	2508	1	0	1			172	30%	2,7	30,8%	424,49	344,40	80,09
9	2491	0	0	1			---	---	---	---	---	---	---
10	2477	0	0	1			574	100%	---	11,32%	8	2	
11	2234	1	0	1									
12	2219	0	0	1									
13	2078	0	0	1			To contact	1200					
14	2036	1	0	1									

B - Choose the universe of customers to contact

1

Export the data from the score node.

Property	Value
General	
Node ID	Score
Imported Data	
Exported Data	
Notes	
Train	



Port	Table	Role	Data Exists
TRAIN	EMWSS.Score_TRAIN	Train	Yes
VALIDATE	EMWSS.Score_VALIDATE	Validate	Yes
TEST	EMWSS.Score_TEST	Test	No
SCORE	EMWSS.Score_SCORE	Score	Yes

Browse...

Explore...

Properties...

OK



Custid	Daystatus	Age	Education	Income	Indhome	Teenhome	Freq	Recency	Monetary	LTV	Perdial	Dryed	Sweetred	Drywh	Sweetwh	Dessert	Exotic
3002	1	24.0	BachelorDegree	129124.0	0.0	0.0	25.0	60.0	1795.0	695.0	2.0	25.0	4.0	53.0	17.0	1.0	1.0
3048	1	24.0	BachelorDegree	94009.0	0.0	1.0	18.0	78.0	720.0	319.0	14.0	36.0	1.0	42.0	17.0	4.0	4.0
3080	1	24.0	BachelorDegree	95361.0	1.0	1.0	18.0	23.0	702.0	66.0	37.0	56.0	0.0	22.0	11.0	11.0	2.0
3116	1	24.0	BachelorDegree	99313.0	0.0	0.0	33.0	58.0	1664.0	835.0	3.0	30.0	9.0	49.0	8.0	3.0	3.0
3123	1	24.0	BachelorDegree	50315.0	0.0	0.0	2.0	96.0	32.0	6.0	32.0	41.0	3.0	14.0	23.0	18.0	1.0
3148	1	24.0	BachelorDegree	101568.0	0.0	0.0	36.0	67.0	1895.0	568.0	3.0	60.0	5.0	30.0	4.0	1.0	7.0
3181	1	24.0	BachelorDegree	82980.0	0.0	1.0	15.0	100.0	543.0	25.0	43.0	64.0	2.0	26.0	5.0	2.0	2.0
3199	1	24.0	BachelorDegree	46636.0	1.0	0.0	2.0	48.0	38.0	1.0	48.0	40.0	3.0	35.0	2.0	20.0	36.0
3226	1	24.0	BachelorDegree	83691.0	0.0	1.0	16.0	22.0	595.0	272.0	8.0	18.0	1.0	53.0	3.0	25.0	14.0
3244	1	24.0	BachelorDegree	61926.0	1.0	0.0	9.0	61.0	257.0	36.0	30.0	94.0	0.0	5.0	1.0	0.0	13.0
3267	1	24.0	BachelorDegree	36031.0	1.0	0.0	1.0	451.0	14.0	0.0	44.0	12.0	3.0	48.0	31.0	6.0	62.0
3293	1	24.0	BachelorDegree	19678.0	1.0	0.0	4.0	50.0	49.0	-2.0	57.0	19.0	5.0	60.0	15.0	0.0	45.0

2

Identify the customers to contact.

A	AS
Custid	Predicted: SPCork=1
3002	1
3048	1
3080	1
3116	1
3123	1
3148	1
3181	1
3199	1
3226	1
3244	1
3267	1
3293	1
3318	1
3343	1
3392	1
3449	1
3482	1
3505	1
3545	1
3569	1

Hide the irrelevant columns and sort the observations by the higher values for column Predicted:Target=1.

Next, select the number of customers (ex:1200) that you identify in the previous step (A).