Milestone 5
Communication of Insights of Data

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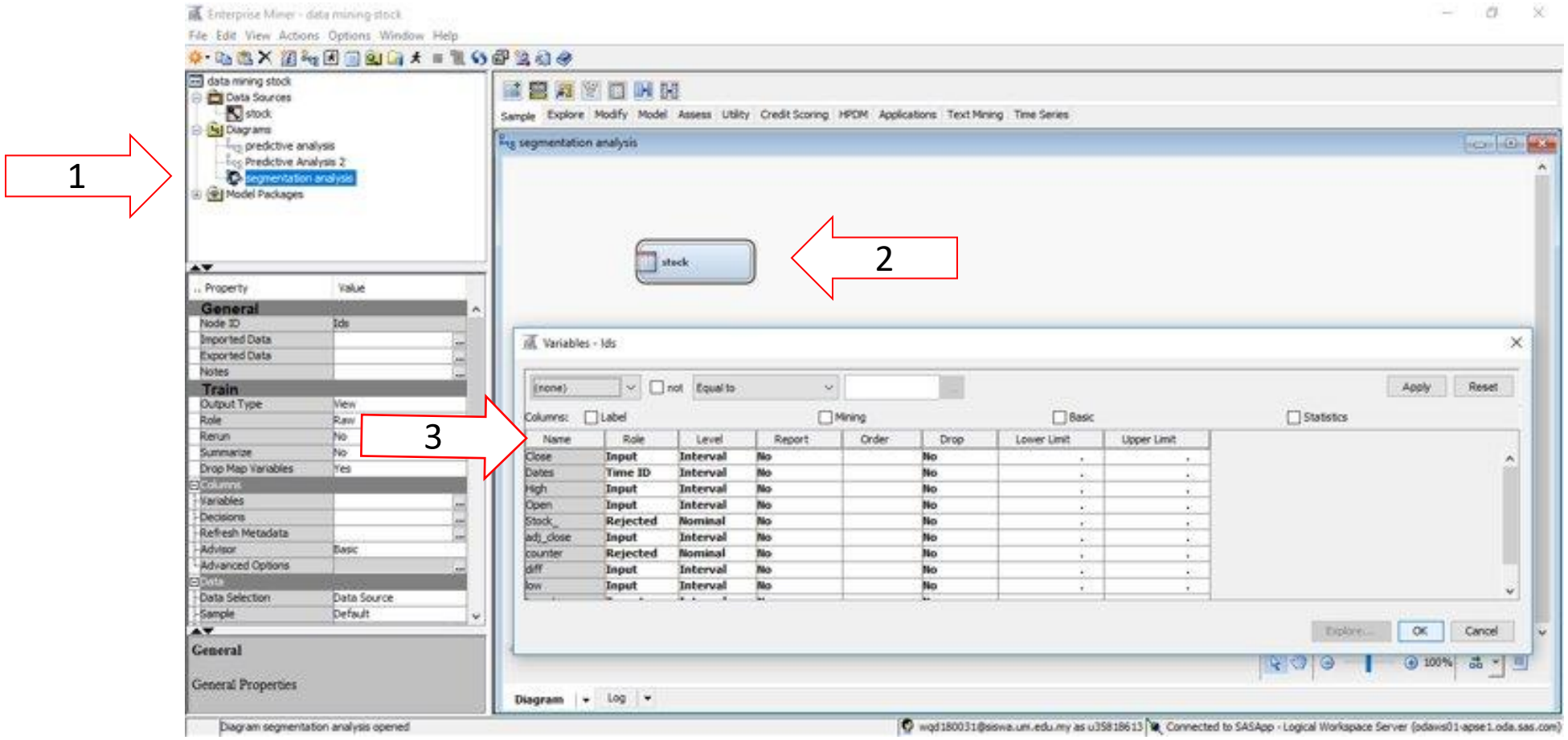
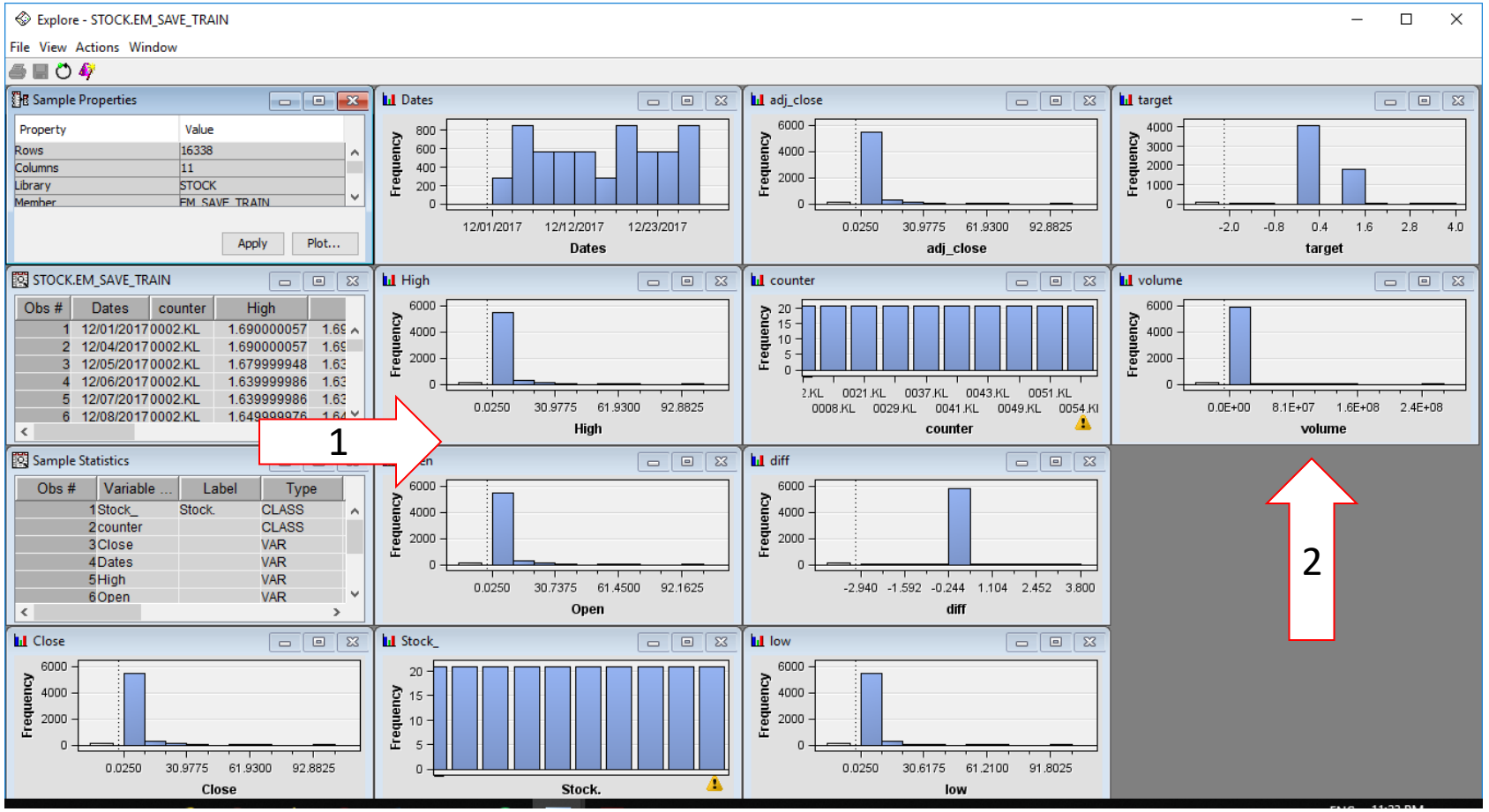
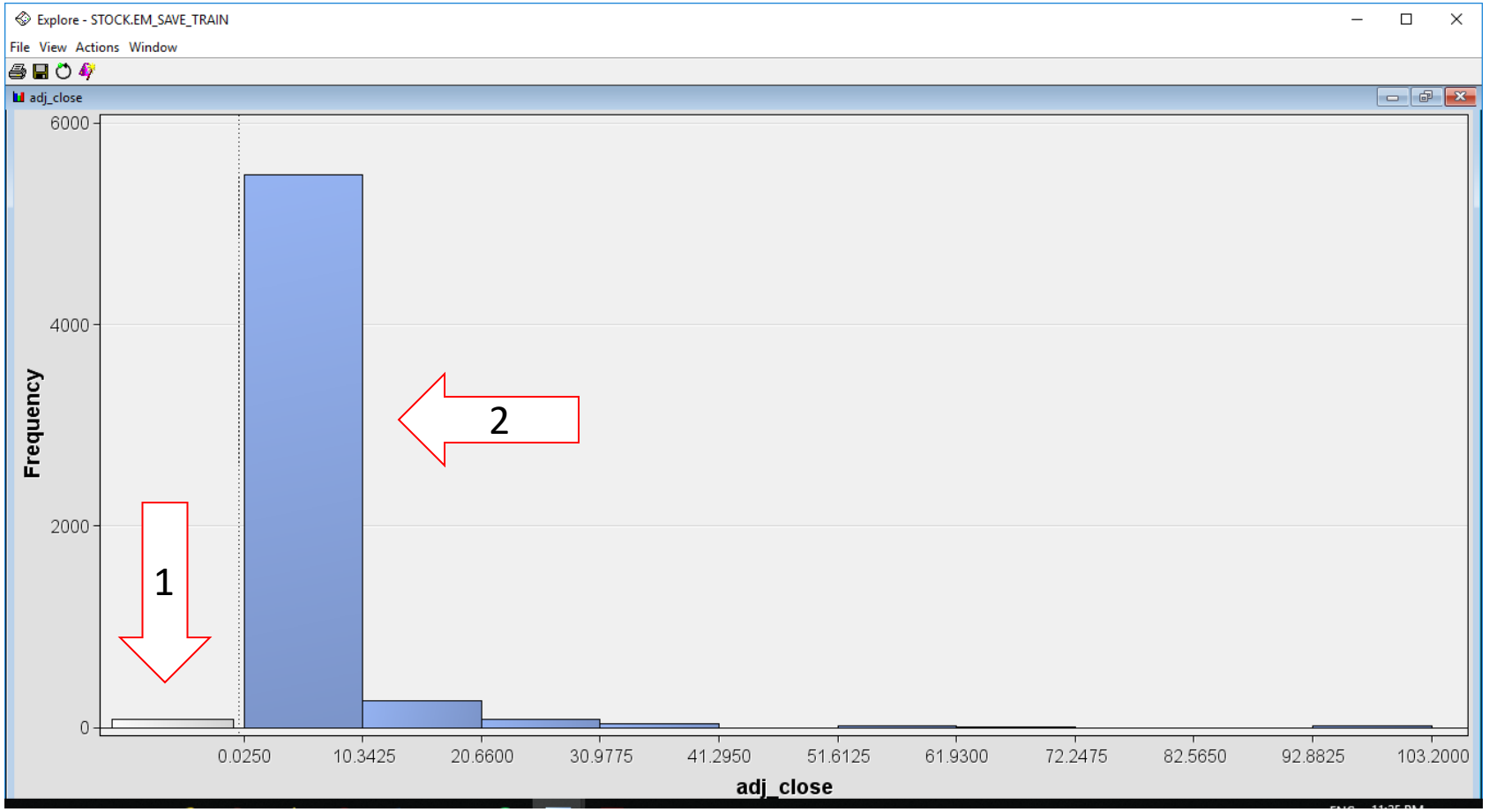
1. Create SEGMENTATION ANALYSIS diagram
2. Import data source STOCK
3. Explore STOCK variables



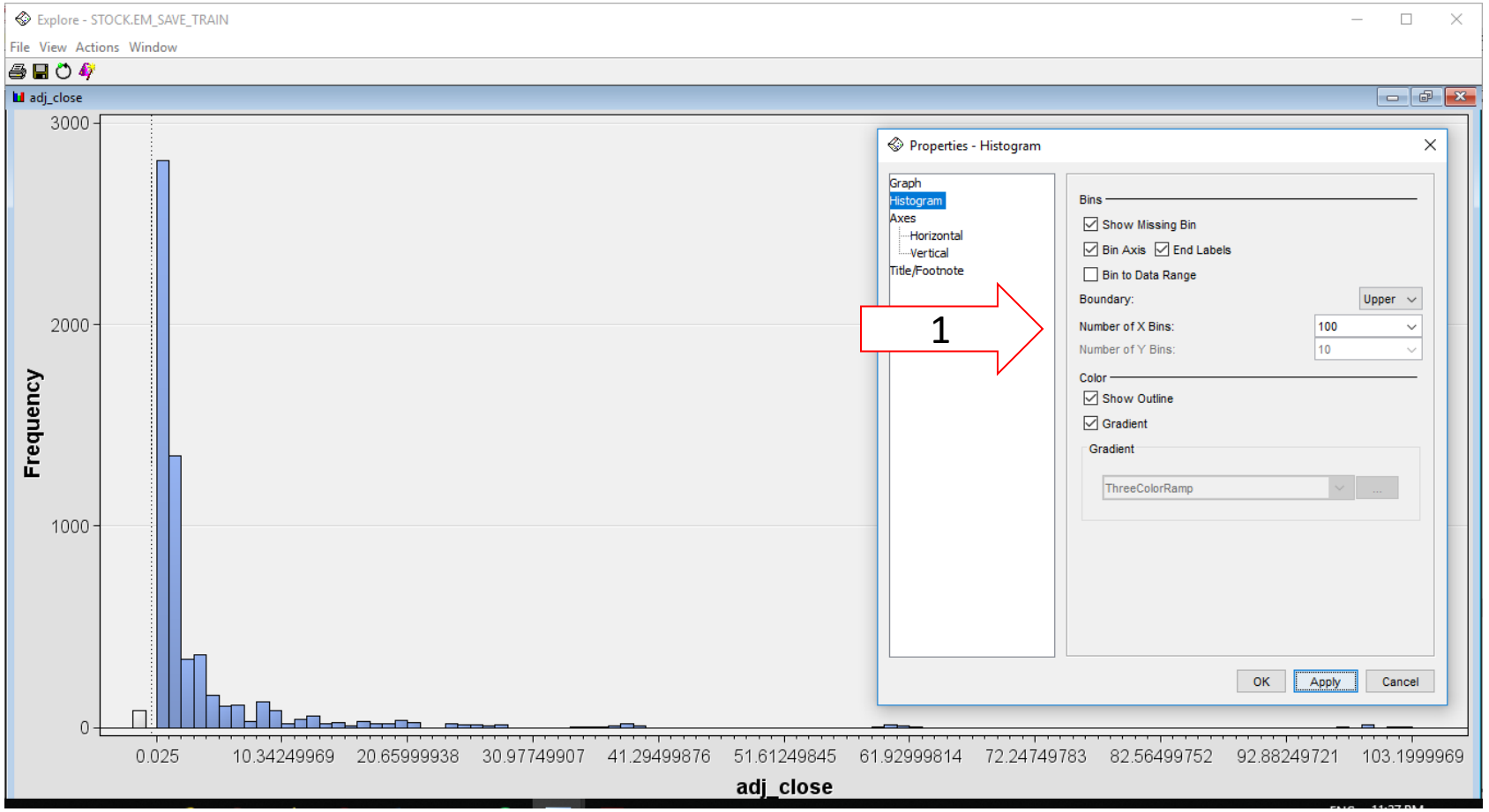
Findings:
1. Similar pattern for adj_close, High & Open
2. There is dominant value for volume



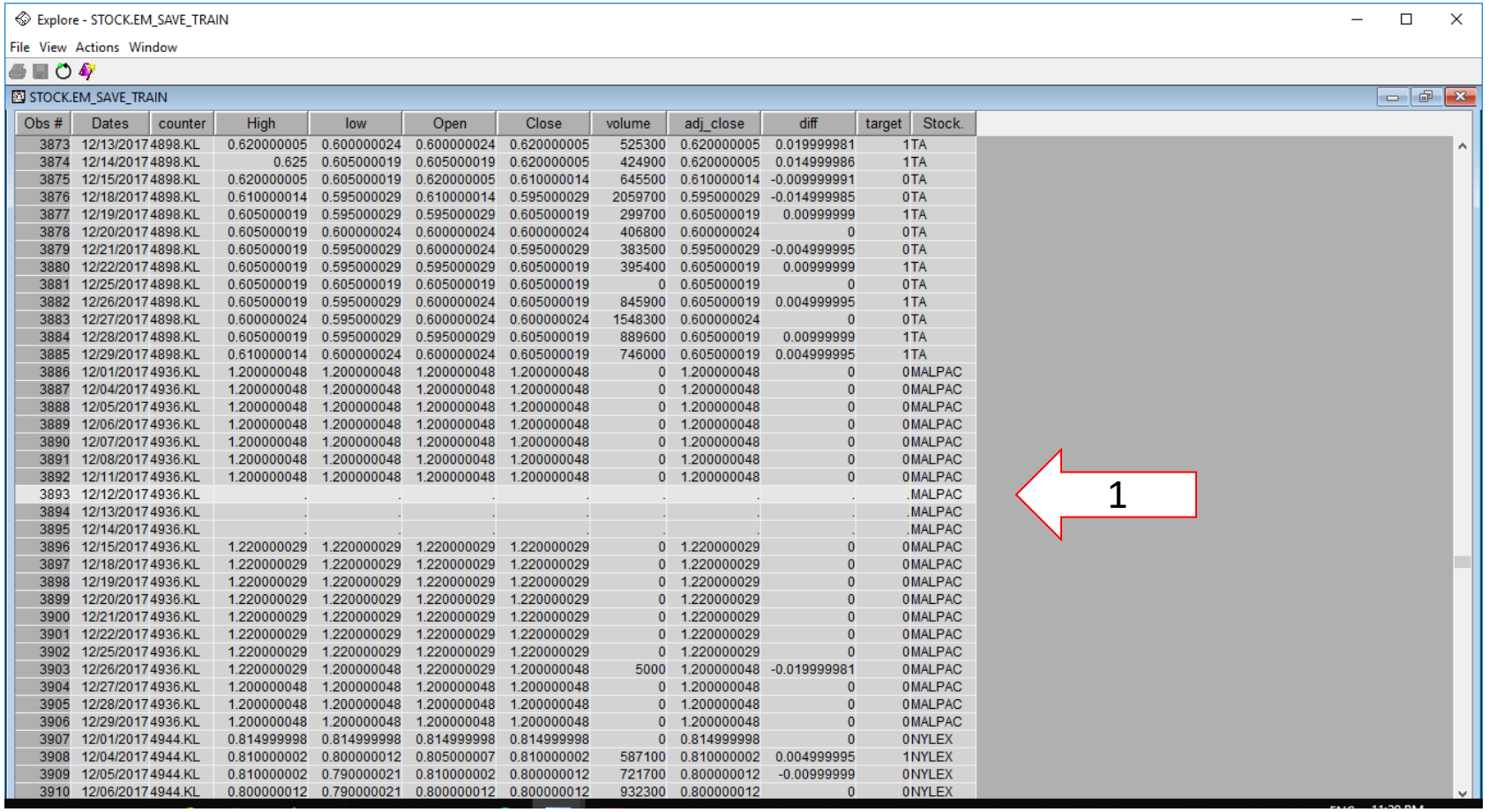
Findings:
1. adj_close table shows maximum value between 0.0250 to 10.3425
2. There is missing value



1. Changed Histogram properties to 100 number of x Bins

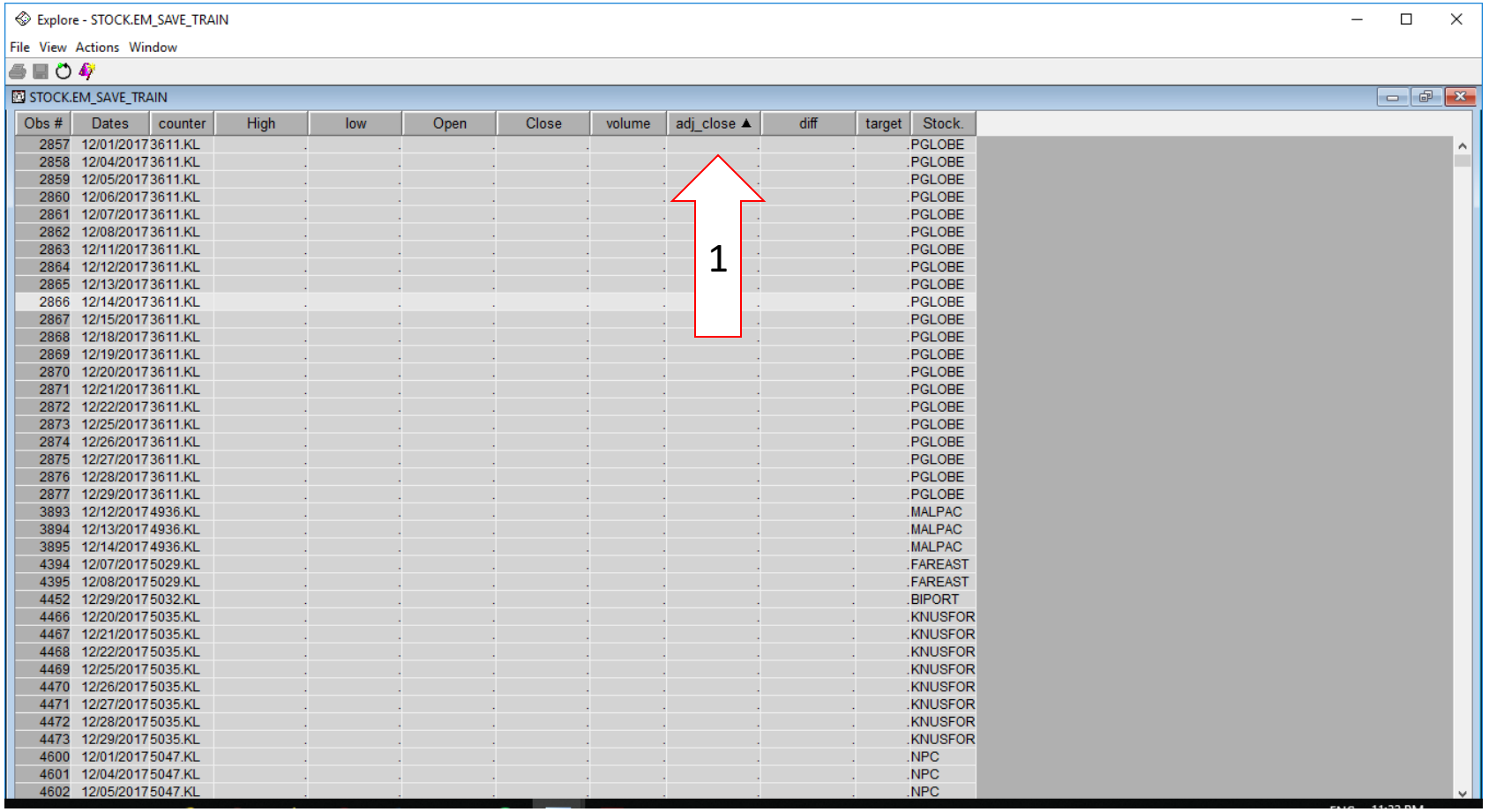


1. Explore TRAIN data and found there is missing value



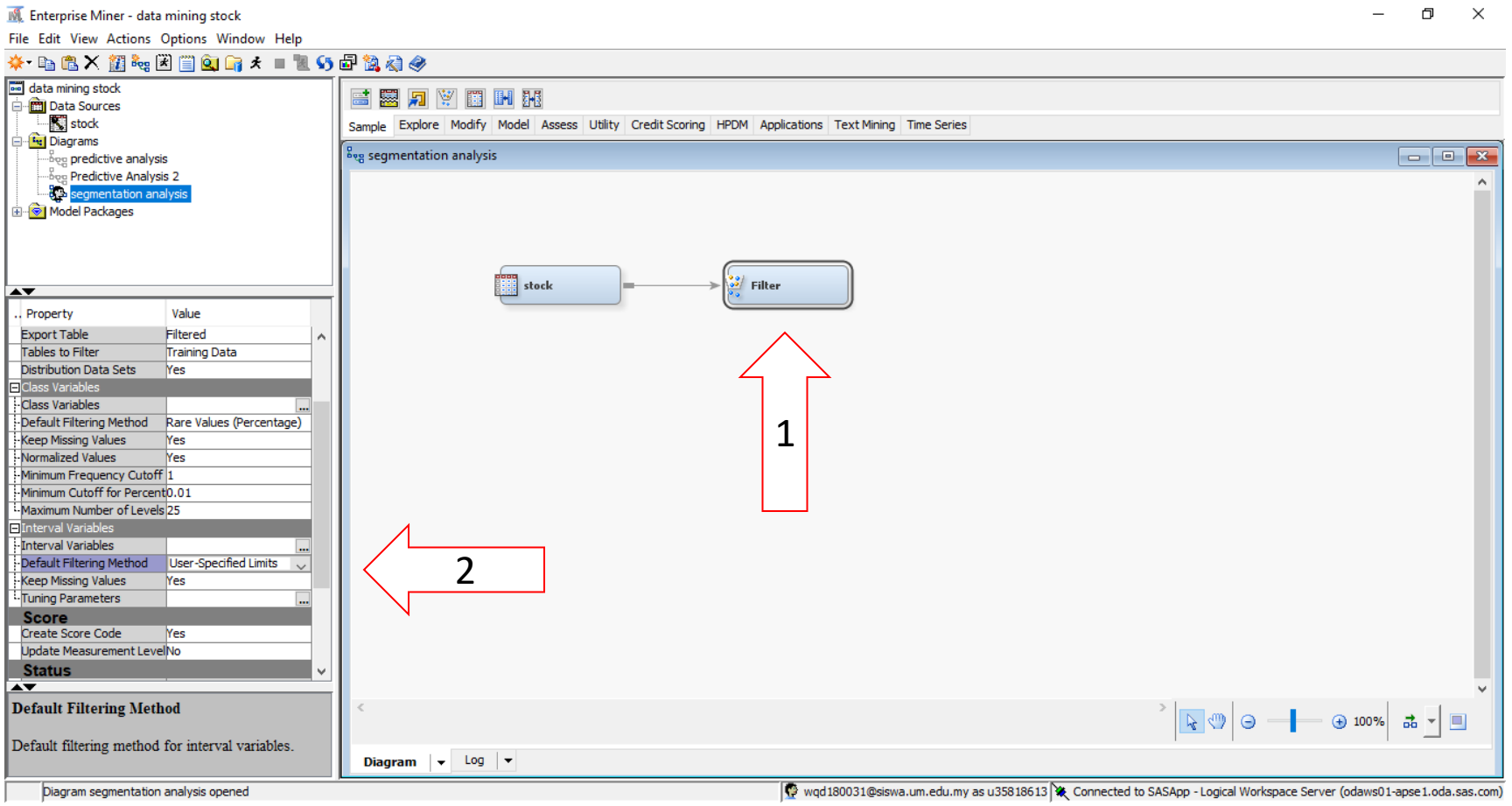
Obs #	Dates	counter	High	low	Open	Close	volume	adj_close	diff	target	Stock.
3873	12/13/2017	4898.KL	0.620000005	0.600000024	0.600000024	0.620000005	525300	0.620000005	0.019999981	1	TA
3874	12/14/2017	4898.KL	0.625	0.605000019	0.605000019	0.620000005	424900	0.620000005	0.014999986	1	TA
3875	12/15/2017	4898.KL	0.620000005	0.605000019	0.620000005	0.610000014	645500	0.610000014	-0.009999991	0	TA
3876	12/18/2017	4898.KL	0.610000014	0.595000029	0.610000014	0.595000029	2059700	0.595000029	-0.014999985	0	TA
3877	12/19/2017	4898.KL	0.605000019	0.595000029	0.595000029	0.605000019	299700	0.605000019	0.00999999	1	TA
3878	12/20/2017	4898.KL	0.605000019	0.600000024	0.600000024	0.600000024	406800	0.600000024	0	0	TA
3879	12/21/2017	4898.KL	0.605000019	0.595000029	0.600000024	0.595000029	383500	0.595000029	-0.004999995	0	TA
3880	12/22/2017	4898.KL	0.605000019	0.595000029	0.595000029	0.605000019	395400	0.605000019	0.00999999	1	TA
3881	12/25/2017	4898.KL	0.605000019	0.605000019	0.605000019	0.605000019	0	0.605000019	0	0	TA
3882	12/26/2017	4898.KL	0.605000019	0.595000029	0.600000024	0.605000019	845900	0.605000019	0.004999995	1	TA
3883	12/27/2017	4898.KL	0.600000024	0.595000029	0.600000024	0.600000024	1548300	0.600000024	0	0	TA
3884	12/28/2017	4898.KL	0.605000019	0.595000029	0.595000029	0.605000019	889600	0.605000019	0.00999999	1	TA
3885	12/29/2017	4898.KL	0.610000014	0.600000024	0.600000024	0.605000019	746000	0.605000019	0.004999995	1	TA
3886	12/01/2017	4936.KL	1.200000048	1.200000048	1.200000048	1.200000048	0	1.200000048	0	0	MALPAC
3887	12/04/2017	4936.KL	1.200000048	1.200000048	1.200000048	1.200000048	0	1.200000048	0	0	MALPAC
3888	12/05/2017	4936.KL	1.200000048	1.200000048	1.200000048	1.200000048	0	1.200000048	0	0	MALPAC
3889	12/06/2017	4936.KL	1.200000048	1.200000048	1.200000048	1.200000048	0	1.200000048	0	0	MALPAC
3890	12/07/2017	4936.KL	1.200000048	1.200000048	1.200000048	1.200000048	0	1.200000048	0	0	MALPAC
3891	12/08/2017	4936.KL	1.200000048	1.200000048	1.200000048	1.200000048	0	1.200000048	0	0	MALPAC
3892	12/11/2017	4936.KL	1.200000048	1.200000048	1.200000048	1.200000048	0	1.200000048	0	0	MALPAC
3893	12/12/2017	4936.KL	.	.	.	.	.	.	.	.	MALPAC
3894	12/13/2017	4936.KL	.	.	.	.	.	.	.	.	MALPAC
3895	12/14/2017	4936.KL	.	.	.	.	.	.	.	.	MALPAC
3896	12/15/2017	4936.KL	1.220000029	1.220000029	1.220000029	1.220000029	0	1.220000029	0	0	MALPAC
3897	12/18/2017	4936.KL	1.220000029	1.220000029	1.220000029	1.220000029	0	1.220000029	0	0	MALPAC
3898	12/19/2017	4936.KL	1.220000029	1.220000029	1.220000029	1.220000029	0	1.220000029	0	0	MALPAC
3899	12/20/2017	4936.KL	1.220000029	1.220000029	1.220000029	1.220000029	0	1.220000029	0	0	MALPAC
3900	12/21/2017	4936.KL	1.220000029	1.220000029	1.220000029	1.220000029	0	1.220000029	0	0	MALPAC
3901	12/22/2017	4936.KL	1.220000029	1.220000029	1.220000029	1.220000029	0	1.220000029	0	0	MALPAC
3902	12/25/2017	4936.KL	1.220000029	1.220000029	1.220000029	1.220000029	0	1.220000029	0	0	MALPAC
3903	12/26/2017	4936.KL	1.220000029	1.200000048	1.220000029	1.200000048	5000	1.200000048	-0.019999981	0	MALPAC
3904	12/27/2017	4936.KL	1.200000048	1.200000048	1.200000048	1.200000048	0	1.200000048	0	0	MALPAC
3905	12/28/2017	4936.KL	1.200000048	1.200000048	1.200000048	1.200000048	0	1.200000048	0	0	MALPAC
3906	12/29/2017	4936.KL	1.200000048	1.200000048	1.200000048	1.200000048	0	1.200000048	0	0	MALPAC
3907	12/01/2017	4944.KL	0.814999998	0.814999998	0.814999998	0.814999998	0	0.814999998	0	0	NYLEX
3908	12/04/2017	4944.KL	0.810000002	0.800000012	0.805000007	0.810000002	587100	0.810000002	0.004999995	1	NYLEX
3909	12/05/2017	4944.KL	0.810000002	0.790000021	0.810000002	0.800000012	721700	0.800000012	-0.00999999	0	NYLEX
3910	12/06/2017	4944.KL	0.800000012	0.790000021	0.800000012	0.800000012	932300	0.800000012	0	0	NYLEX

1. Sorted adj_close to get ascending's for clearer in order to analyze missing value

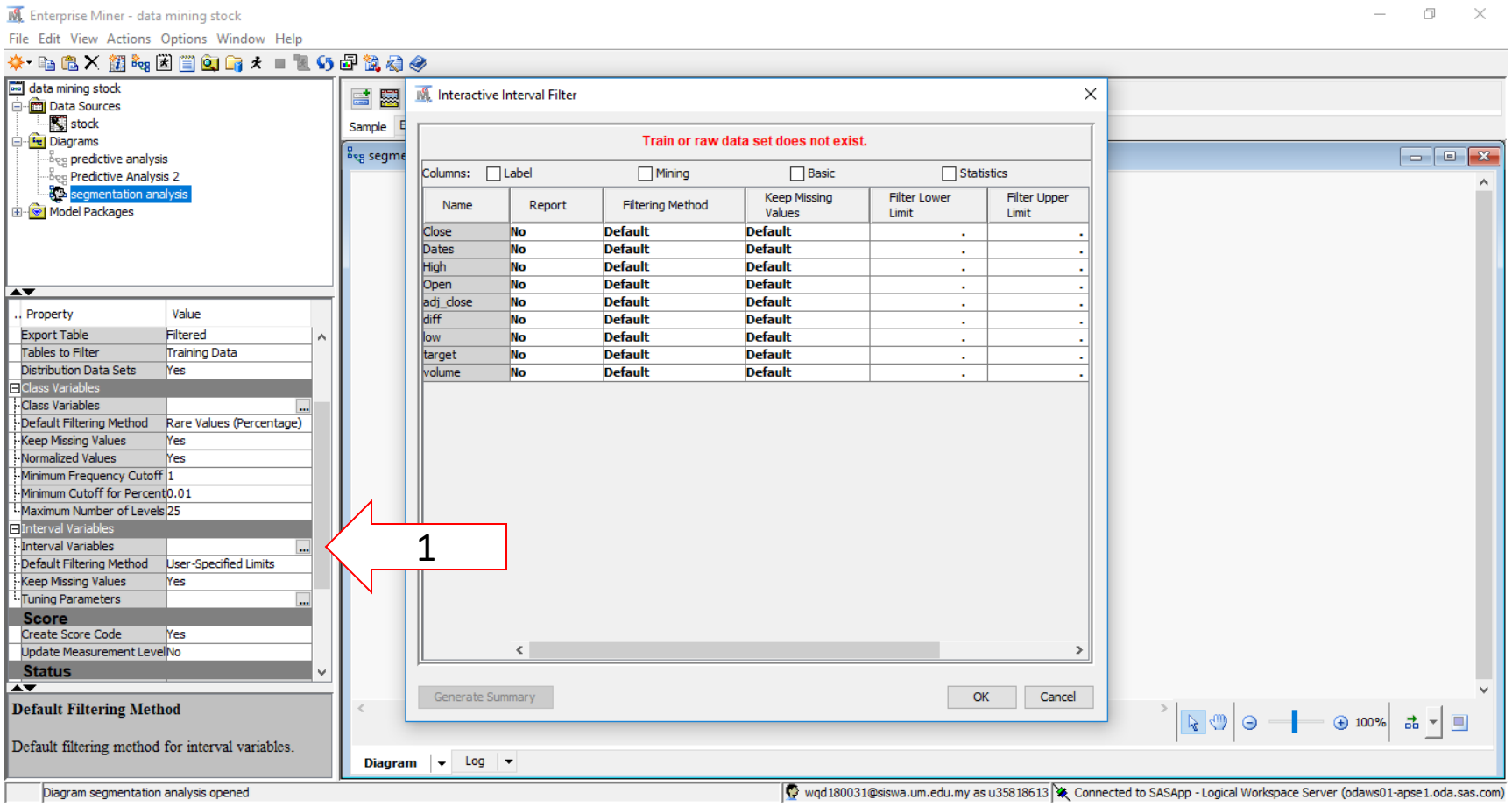


Obs #	Dates	counter	High	low	Open	Close	volume	adj_close ▲	diff	target	Stock.
2857	12/01/2017	3611.KL									.PGLOBE
2858	12/04/2017	3611.KL									.PGLOBE
2859	12/05/2017	3611.KL									.PGLOBE
2860	12/06/2017	3611.KL									.PGLOBE
2861	12/07/2017	3611.KL									.PGLOBE
2862	12/08/2017	3611.KL									.PGLOBE
2863	12/11/2017	3611.KL									.PGLOBE
2864	12/12/2017	3611.KL									.PGLOBE
2865	12/13/2017	3611.KL									.PGLOBE
2866	12/14/2017	3611.KL									.PGLOBE
2867	12/15/2017	3611.KL									.PGLOBE
2868	12/18/2017	3611.KL									.PGLOBE
2869	12/19/2017	3611.KL									.PGLOBE
2870	12/20/2017	3611.KL									.PGLOBE
2871	12/21/2017	3611.KL									.PGLOBE
2872	12/22/2017	3611.KL									.PGLOBE
2873	12/25/2017	3611.KL									.PGLOBE
2874	12/26/2017	3611.KL									.PGLOBE
2875	12/27/2017	3611.KL									.PGLOBE
2876	12/28/2017	3611.KL									.PGLOBE
2877	12/29/2017	3611.KL									.PGLOBE
3893	12/12/2017	4936.KL									.MALPAC
3894	12/13/2017	4936.KL									.MALPAC
3895	12/14/2017	4936.KL									.MALPAC
4394	12/07/2017	5029.KL									.FAREAST
4395	12/08/2017	5029.KL									.FAREAST
4452	12/29/2017	5032.KL									.BIPORT
4466	12/20/2017	5035.KL									.KNUSFOR
4467	12/21/2017	5035.KL									.KNUSFOR
4468	12/22/2017	5035.KL									.KNUSFOR
4469	12/25/2017	5035.KL									.KNUSFOR
4470	12/26/2017	5035.KL									.KNUSFOR
4471	12/27/2017	5035.KL									.KNUSFOR
4472	12/28/2017	5035.KL									.KNUSFOR
4473	12/29/2017	5035.KL									.KNUSFOR
4600	12/01/2017	5047.KL									.NPC
4601	12/04/2017	5047.KL									.NPC
4602	12/05/2017	5047.KL									.NPC

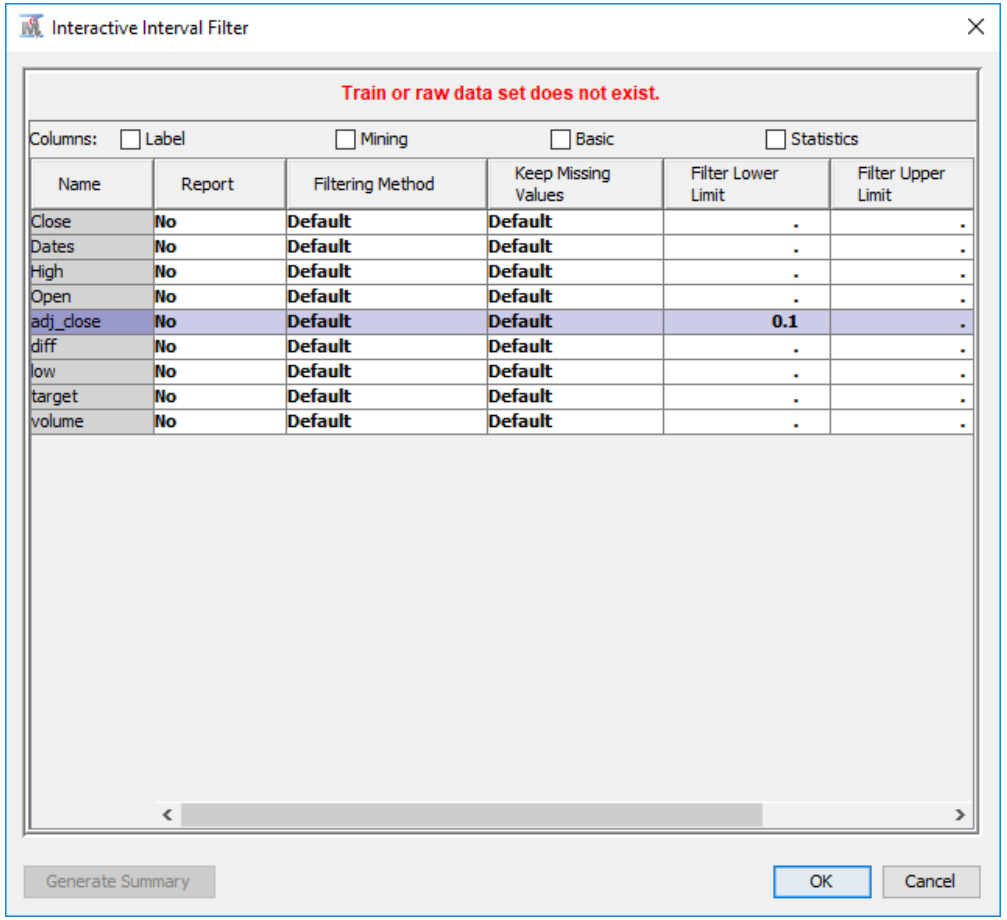
1. Import FILTER node and connect to data source STOCK in diagram
2. Change Default Filtering Method for Interval Variables to User-Specified Limits



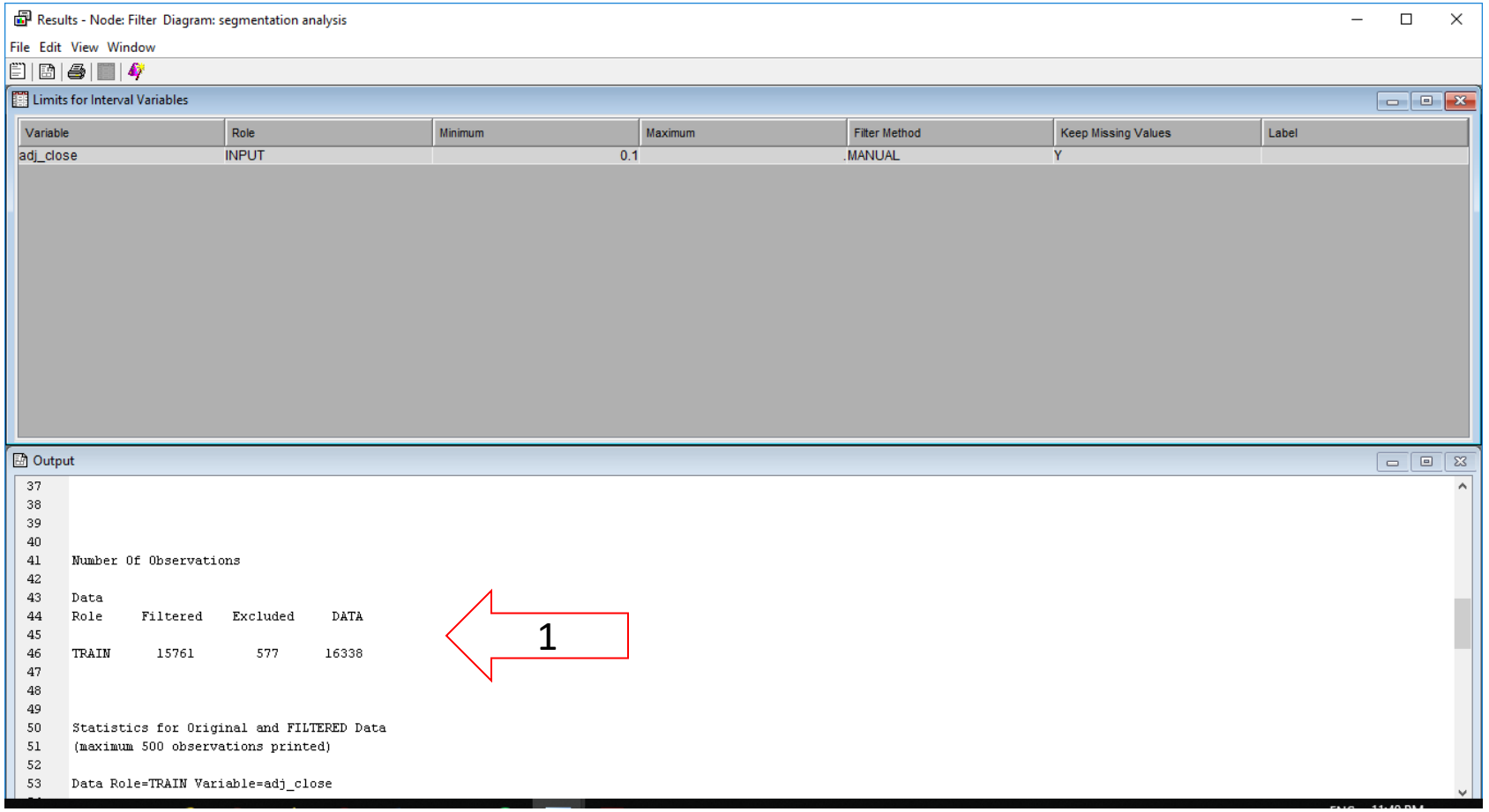
1. Open Interactive Interval Filter by select the Interval Variables ellipsis



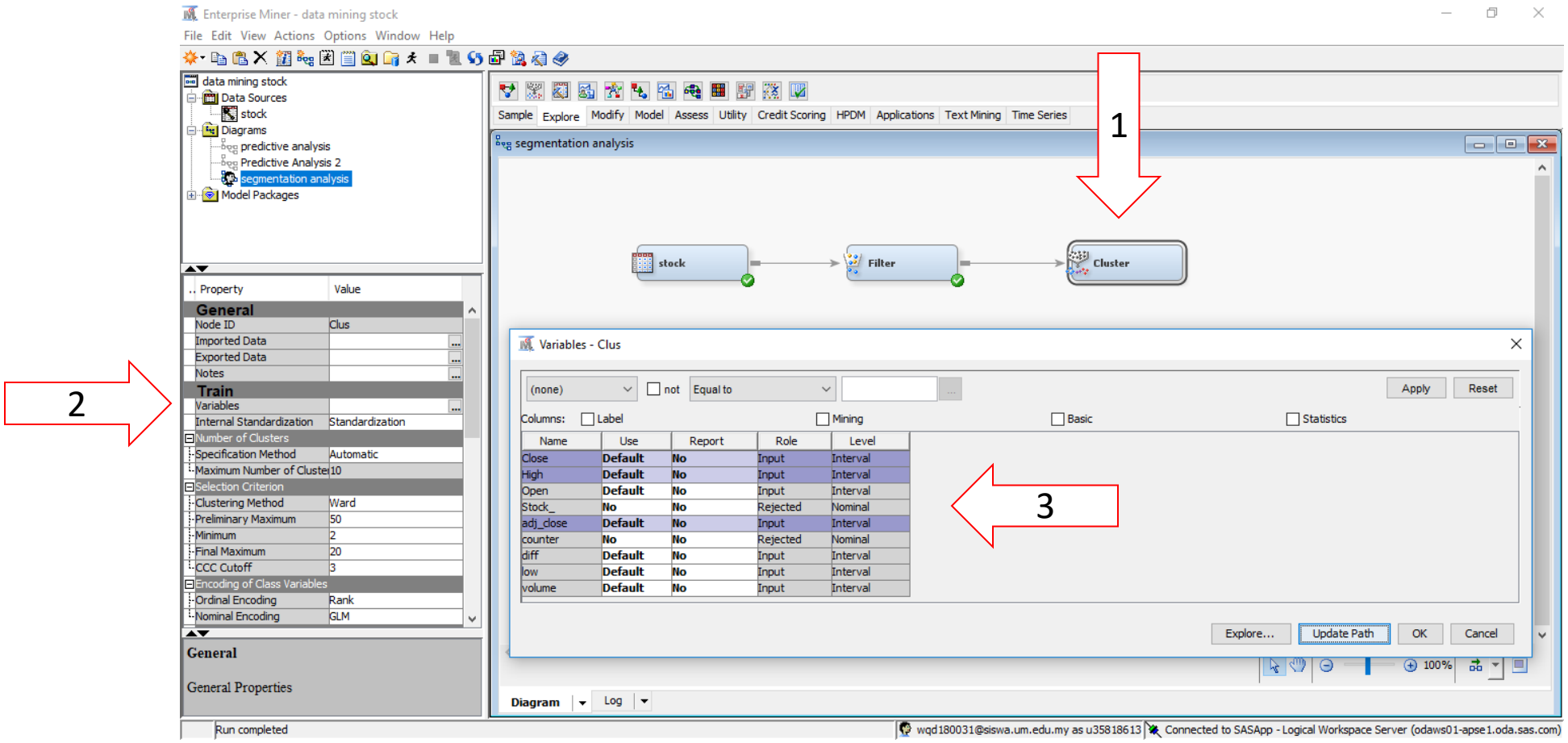
1. Change adj_close Filter Lower Limit to 0.1 and run the FILTER node



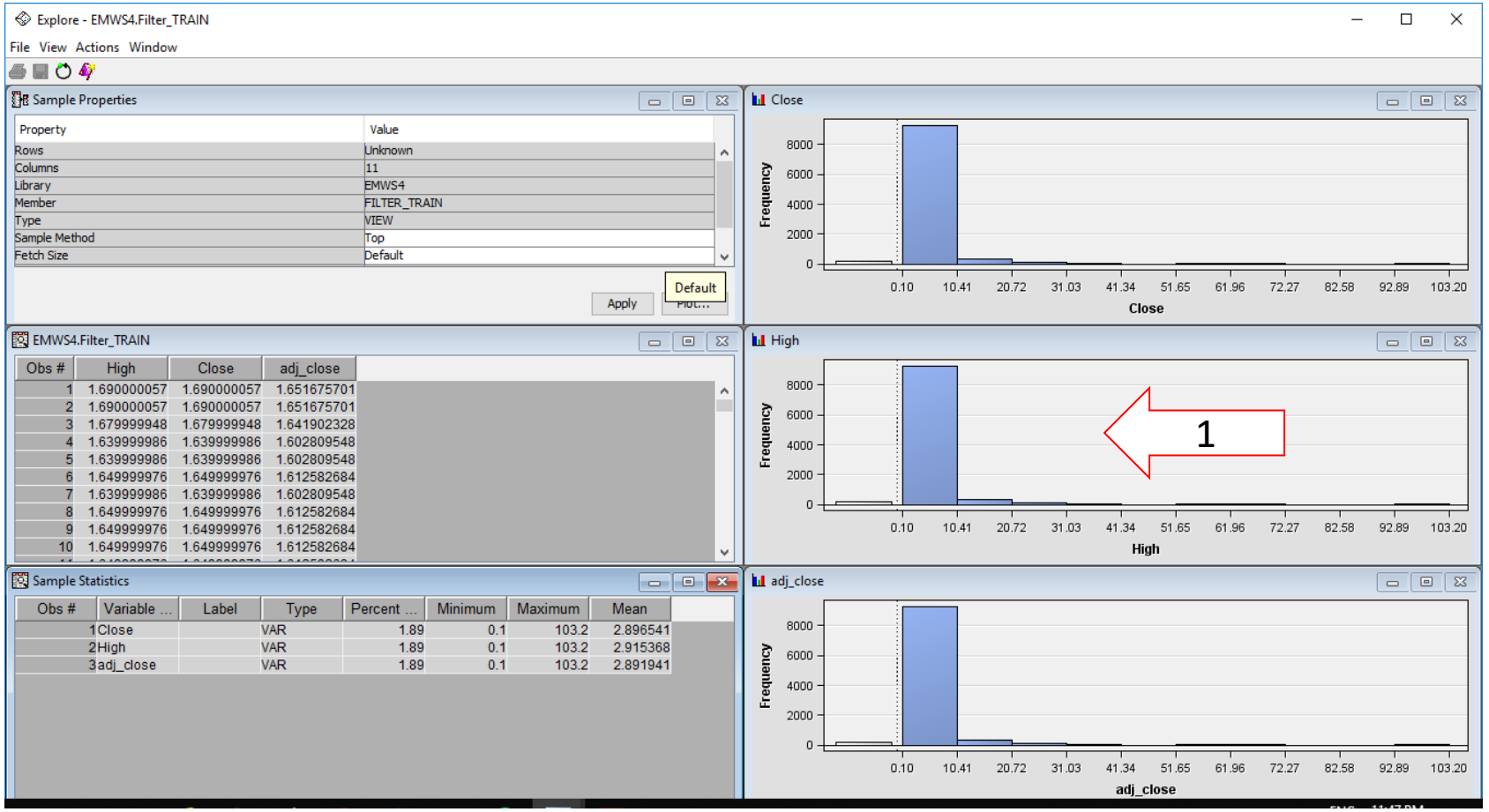
Finding:
1. 577 observations are Excluded



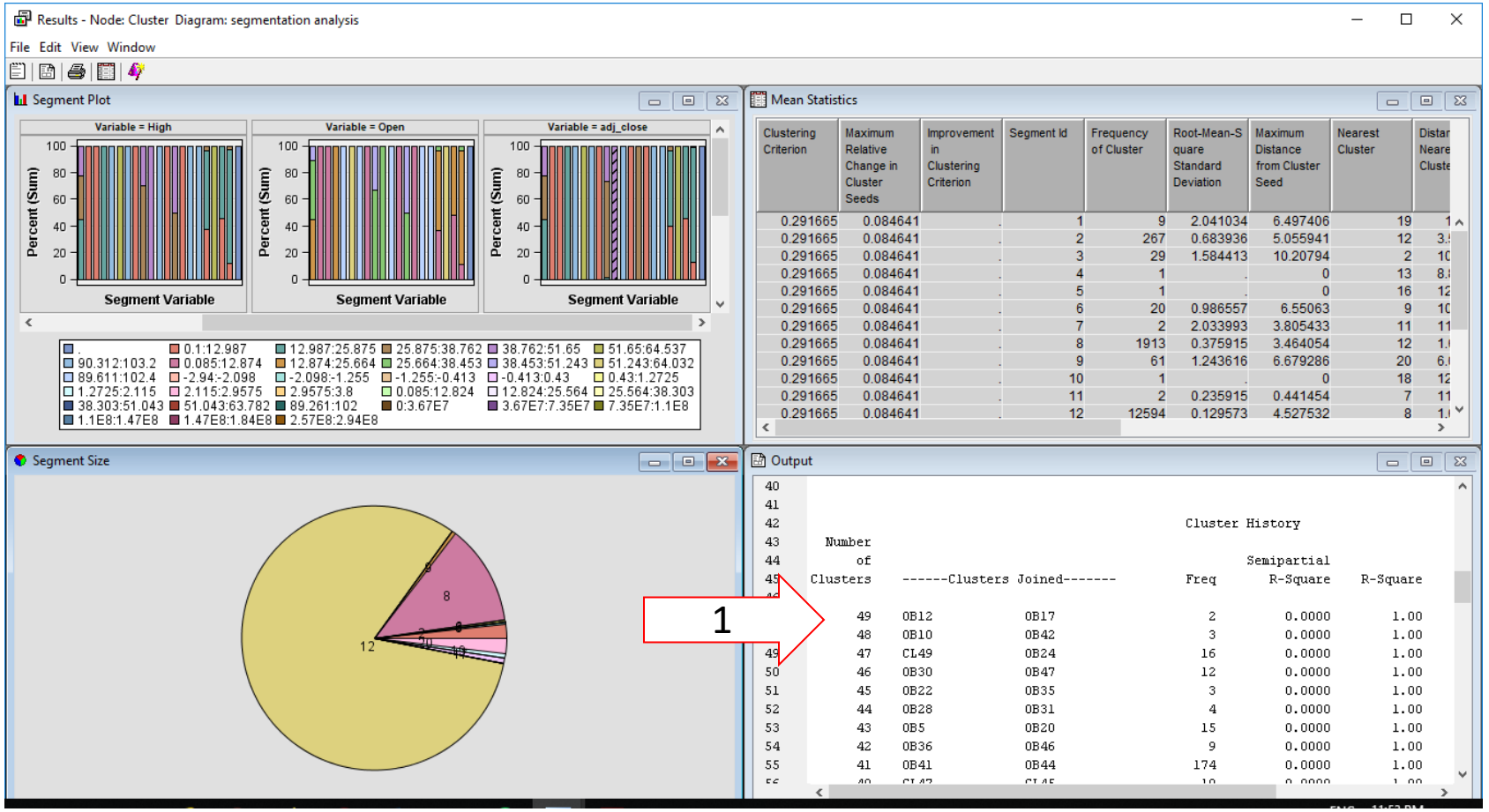
1. Import CLUSTER node and connect to FILTER node
2. Open CLUSTER node Variables
3. Select Close, High and adj_close variables



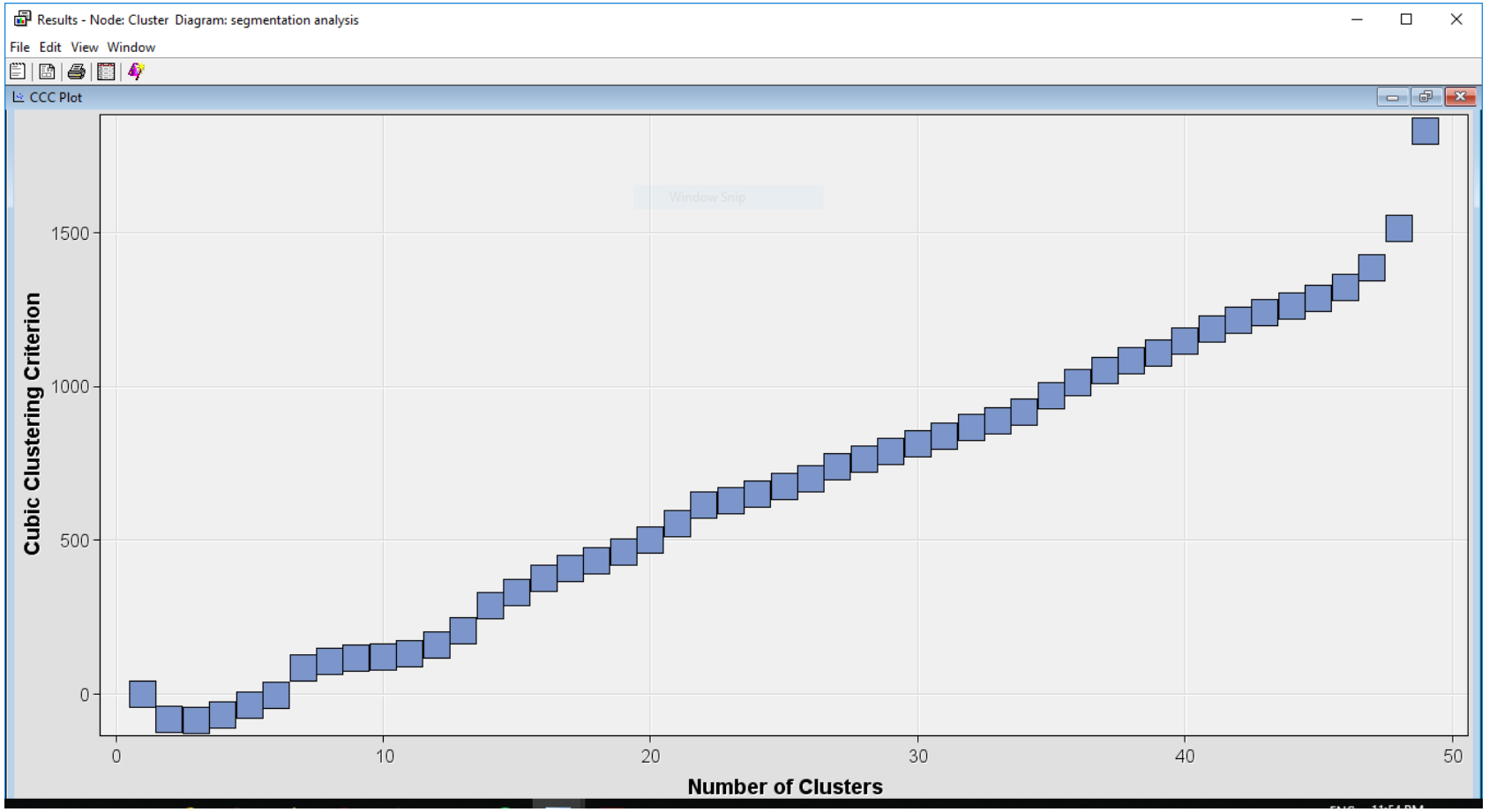
1. Explore Close, High and adj_close and it shows similar pattern



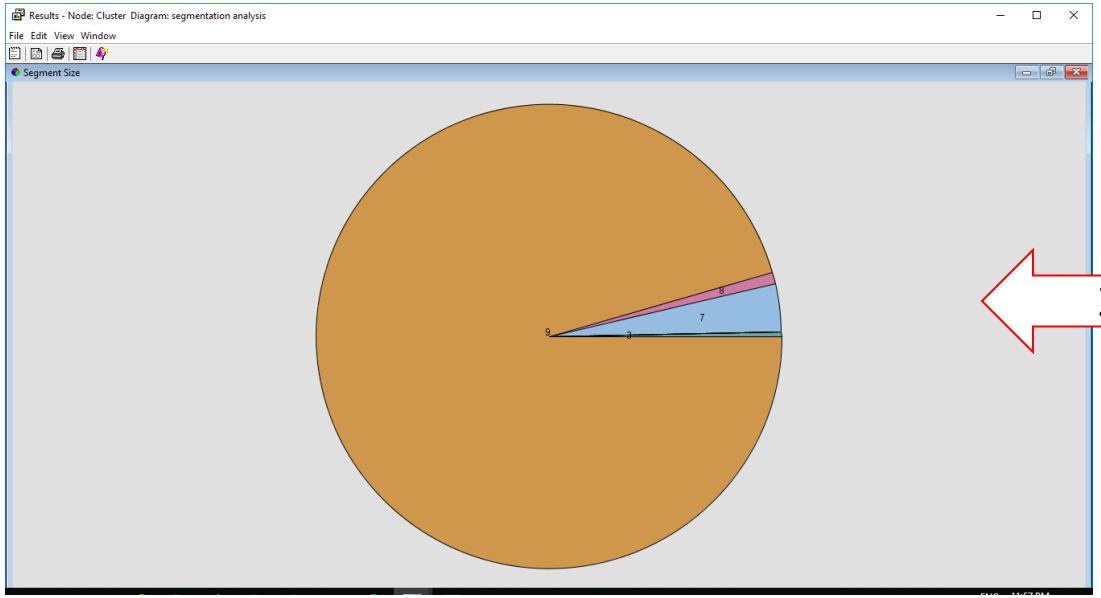
1. Run CLUSTER node and found there is 49 cluster have been created



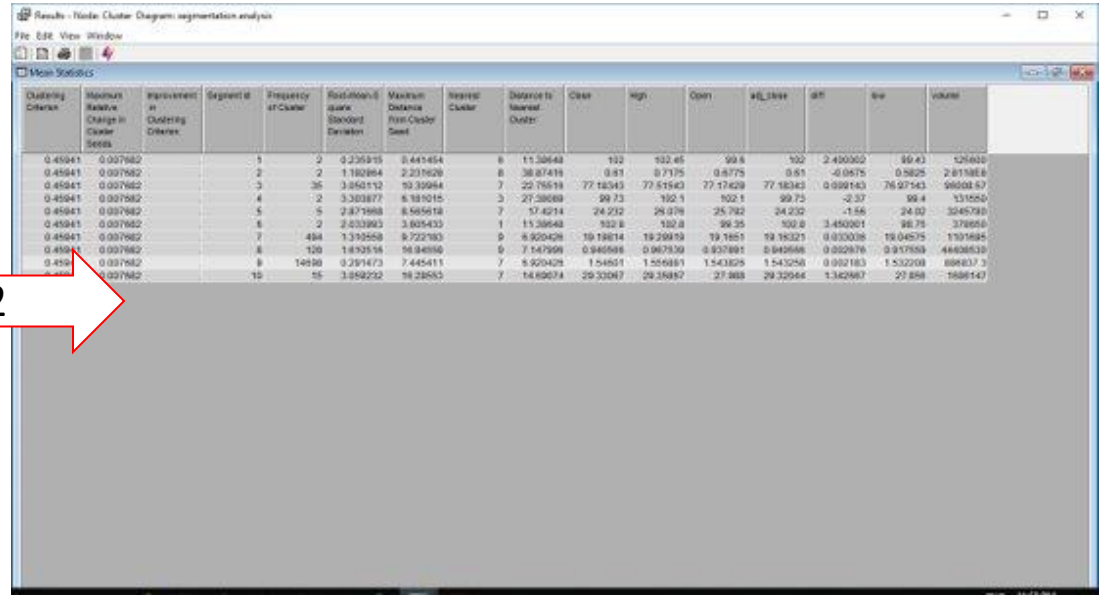
1. View Summary Statistics in CCC Plot, it shows clearly all 49 clusters



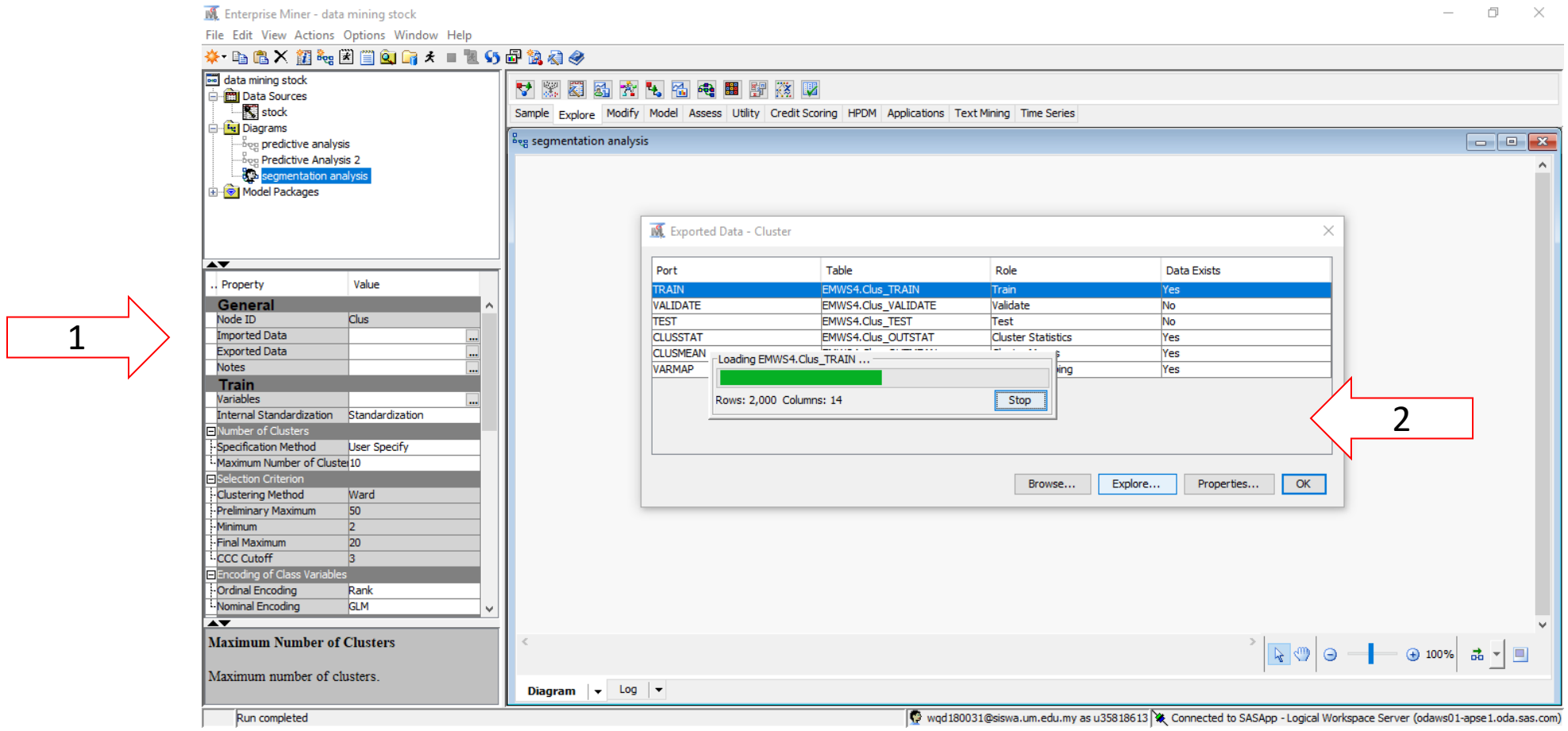
1. Change Specification Method to User Specified with default 10
2. Re-run the CLUSTER node to create maximum 10 Clusters.



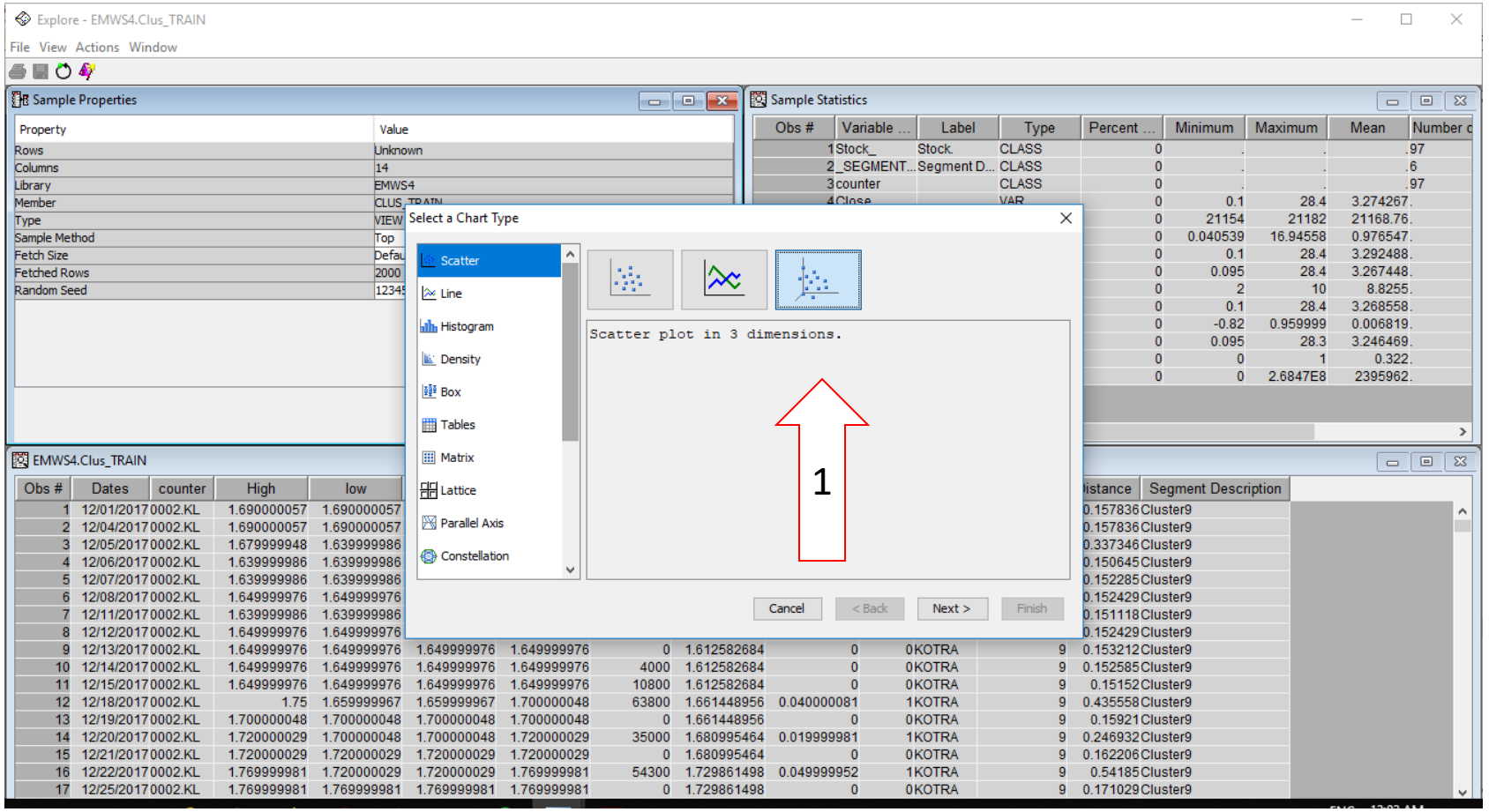
2



1. Select Exported Data
2. Select TRAIN and Explore

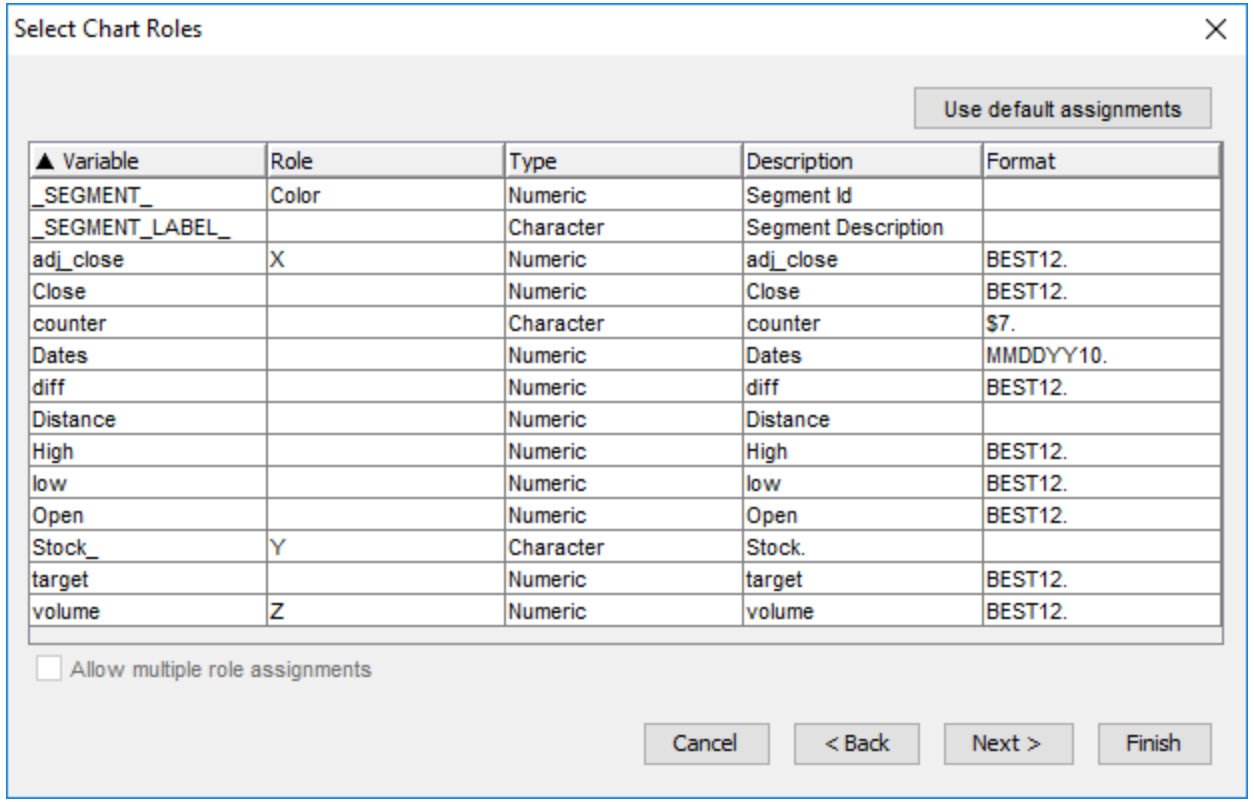


1. Create 3D Scatter Plot



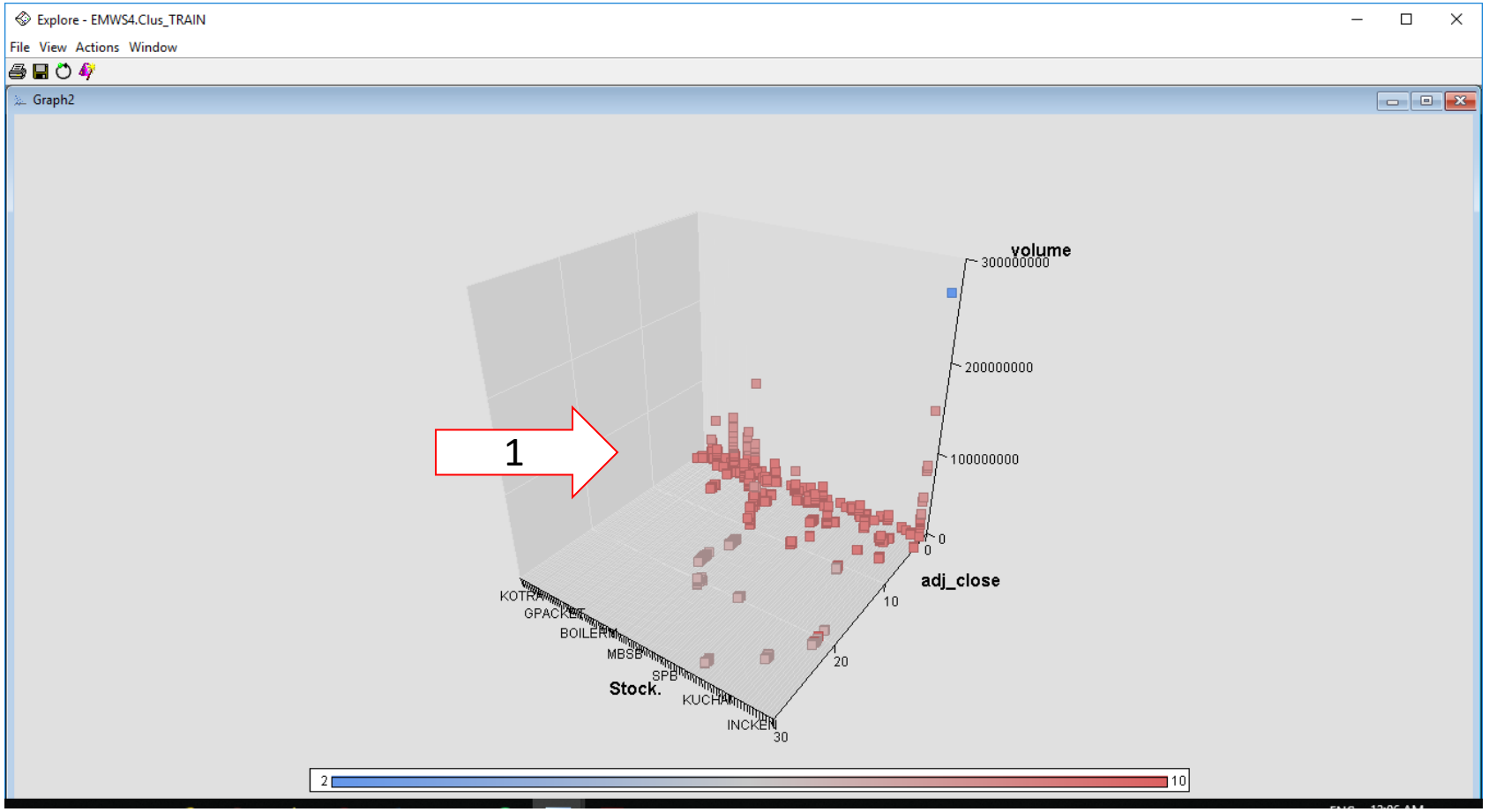
1. Change SEGMENT Role to Color, adj_close to X, Stock to Y and volume to Z

1

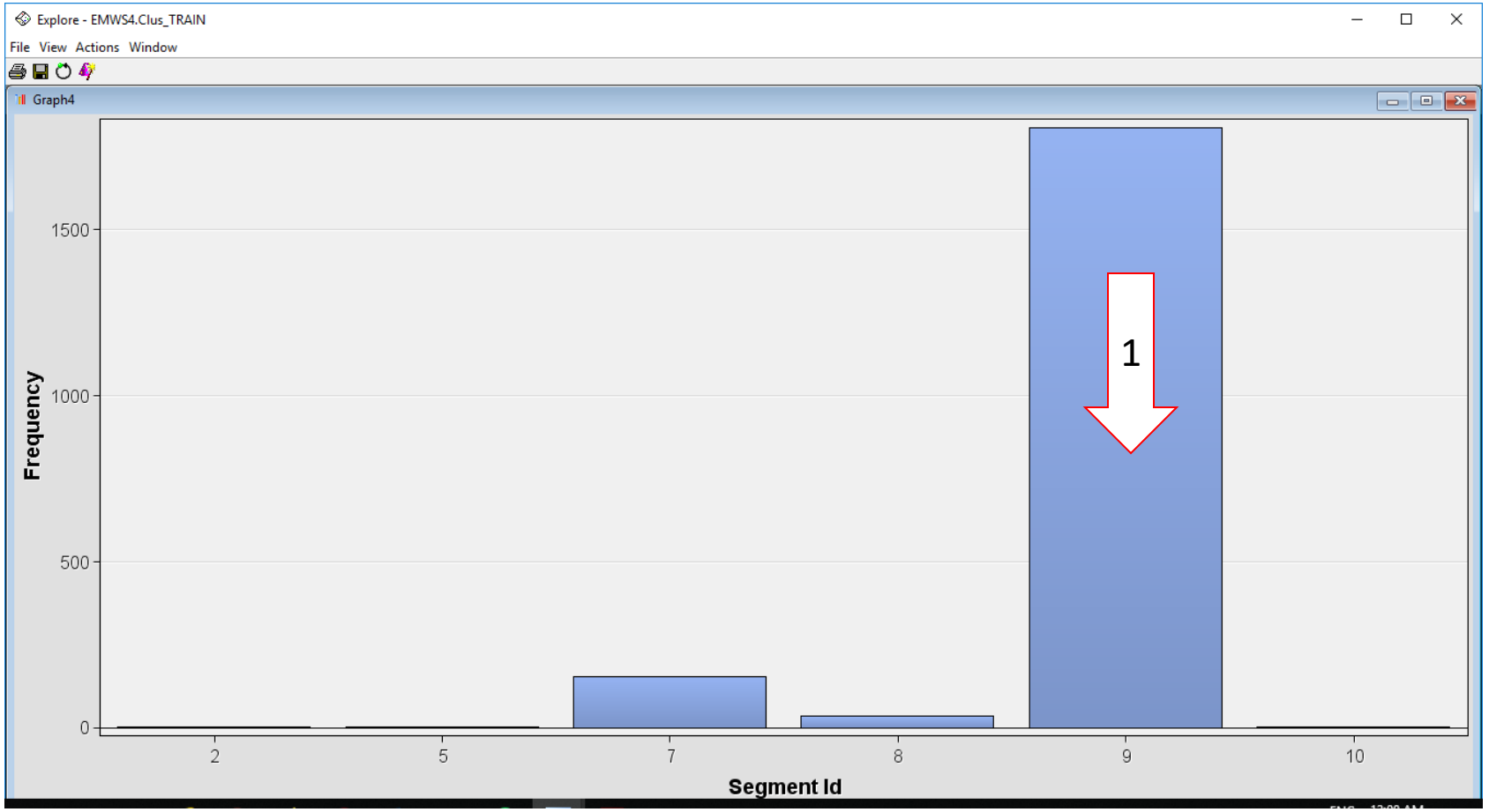


▲ Variable	Role	Type	Description	Format
SEGMENT	Color	Numeric	Segment Id	
_SEGMENT_LABEL_		Character	Segment Description	
adj_close	X	Numeric	adj_close	BEST12.
Close		Numeric	Close	BEST12.
counter		Character	counter	$7.
Dates		Numeric	Dates	MMDDYY10.
diff		Numeric	diff	BEST12.
Distance		Numeric	Distance	
High		Numeric	High	BEST12.
low		Numeric	low	BEST12.
Open		Numeric	Open	BEST12.
Stock_	Y	Character	Stock.	
target		Numeric	target	BEST12.
volume	Z	Numeric	volume	BEST12.

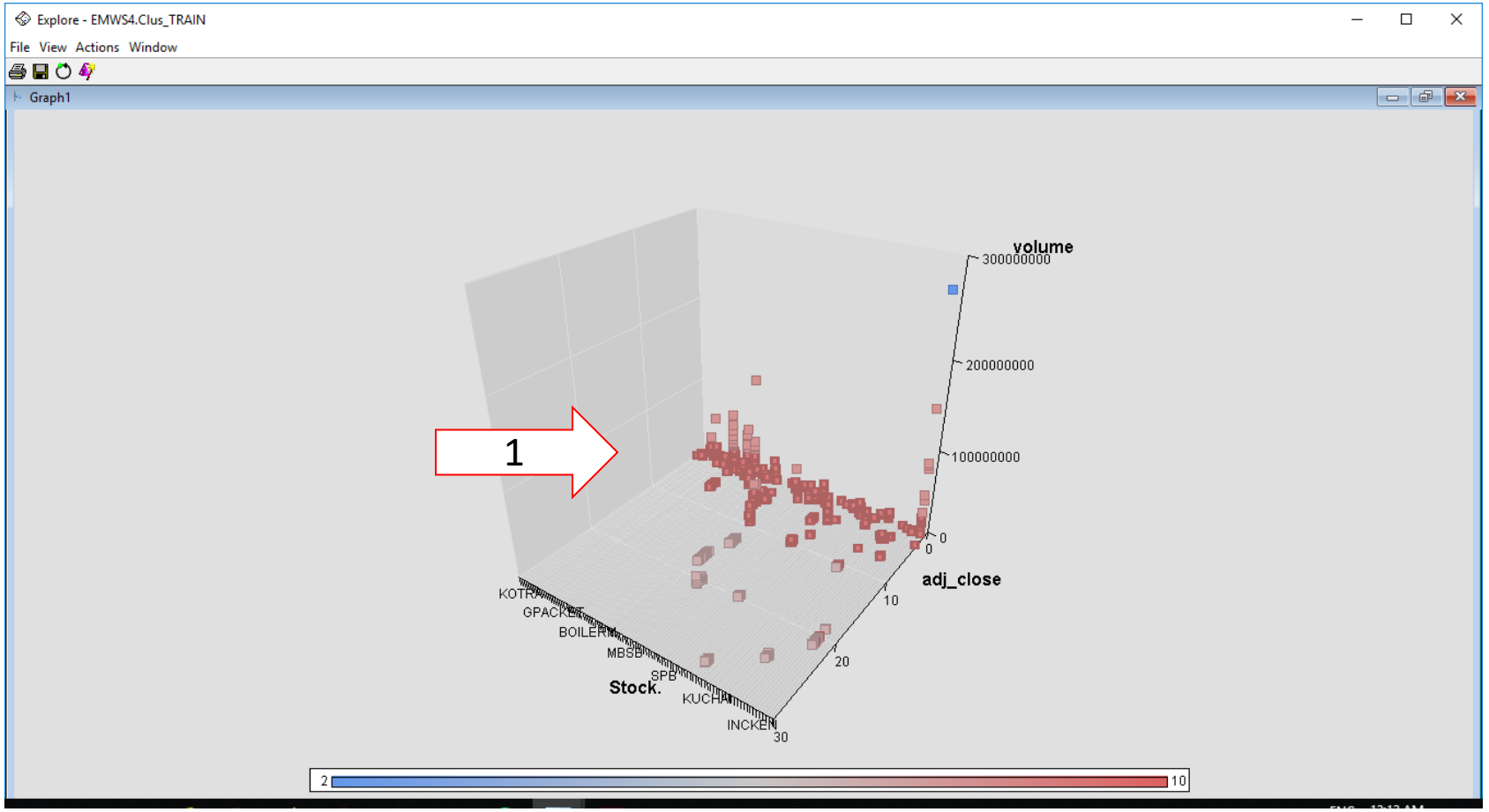
Finding:
1. Most of the data plotting at 1 area



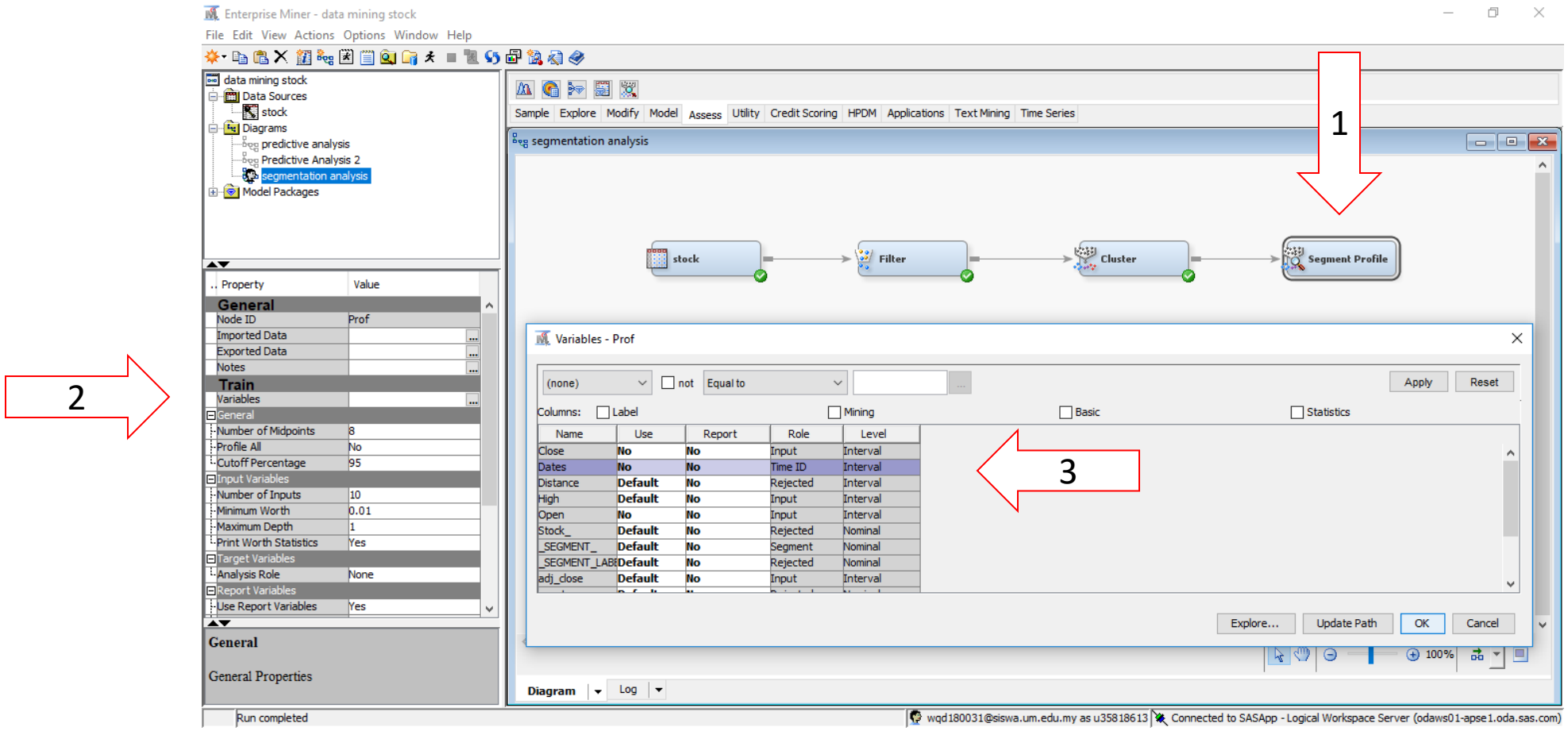
1. Select Segmen_id 9 of TRAIN for further analysis



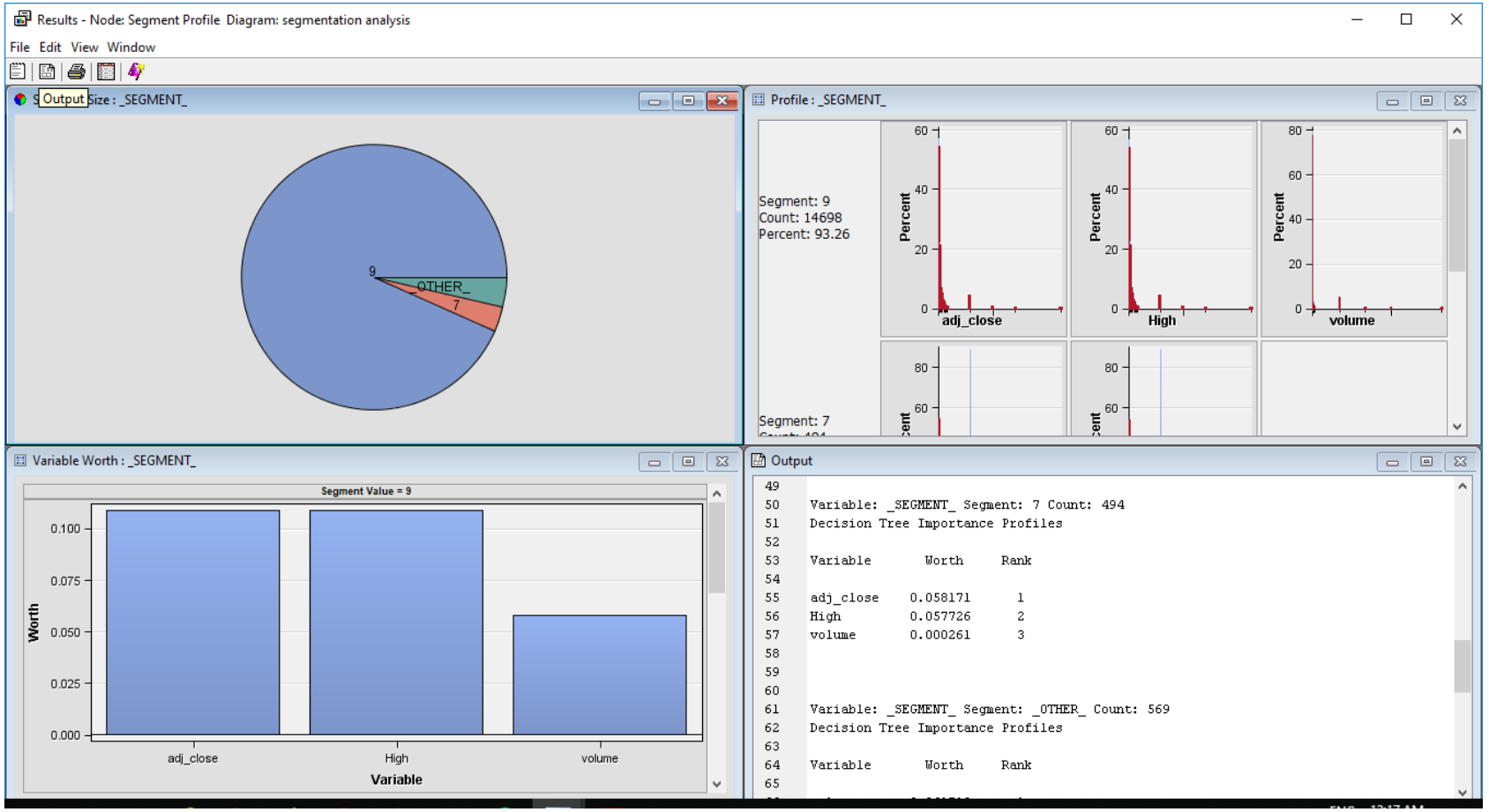
Finding:
1. Bold RED color represent Segment_id 9



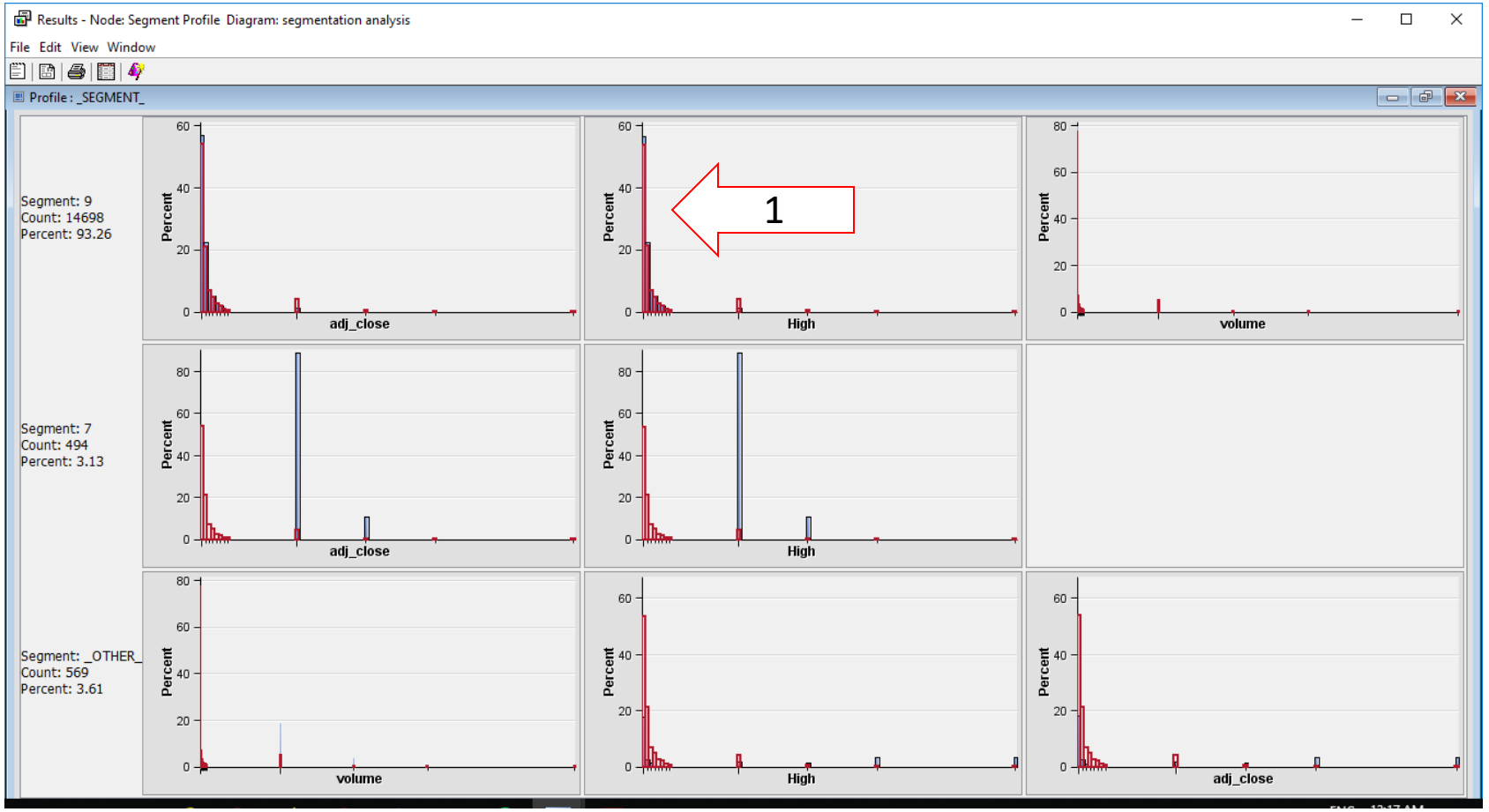
1. Import SEGMENT PROFILE node to diagram and connect to CLUSTER node
2. Select SEGMENT PROFILE node Variables
3. Change it Variables properties



1. Run the SEGMENT PROFILE node and analyze the results



1. Maximize the Profile window and found features of each segment become apparent



1. Maximize the SEGMENT window and found adj_close and High show similar character compared to volume