



AroniSmartIntelligence  
Machine Learning  
DataScience  
Applied Statistics  
Econometrics  
Text Analytics  
Bayesian Models  
Neural Networks

*AroniSmartIntelligence™ Tutorial  
Part IV: Segmentation Analysis*



## Welcome to AroniSmartIntelligence: Smart Tools for Applied Statistics, Econometrics, Machine Learning, Data Science, Text Analytics &amp; Big Data

Open a File in Aroni format or check the Handbook and Manuals to explore the capabilities

Open File or Dataset with the Specified Format:



Aroni Format



Text or CSV

 Has Header

Show Data



Data Set

Dataset Name: TestDataCSV.csv

Records:

180

Variables:

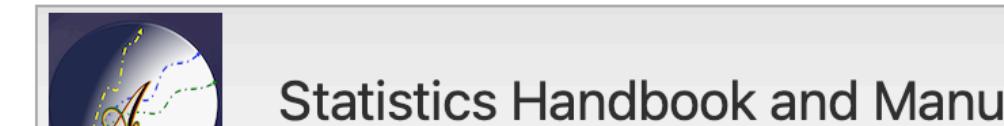


Click on Segmentation tab

Simple Least-Squares and Polynomial models may use Linear, Robust, Logistic, and Ridge Regression models

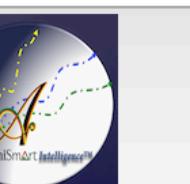
Generalized Linear Models, Mixed Models, Bayesian Models, Econometrics, in formats ( weights and initial partition must be in a text file)

Statistics Handbook, Probabilities Reference and Manuals:



Or Click on Segmentation &amp; Mixture Models

Descriptive Analysis and Statistic Tests:



Statistical Inference

Bayesian Models, Machine Learning, and BigData Analytics:

Bayesian Models, Neural Network, Machine Learning &amp; BigData Analytics

Finite Mixture Gaussian &amp; Generalized Mixture Models:



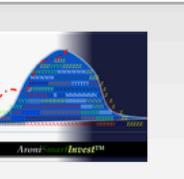
Segmentation &amp; Mixture Models



Regression Analysis &amp; Econometrics

Message text here

Text Mining and Analytics:



Text and Sentiment Analytics



Readme

Status and Log

Ready

Stop Execution



## AroniSmartIntelligence Segmentation User Interface

Click Segmentation tab or Segmentation &amp; Mixture Models button from AroniSmartIntelligence™ interface to access the module

General Mixture Models   Finite Mixture Models   Output Viewer   Visualization

**Data Set**

Name: iris\_test  
Variables: 6  
Records: 150

Select Variables:  
 All    Deselect    Invert  
petallength  
petalwidth  
sepalwidth  
sepallength

**variables (attributes)**

Segmentation Setup

Follow the following steps: 1) Select Variables from the viewer; 2) Choose Segmentation Method; 3, 4) Click Model Setup button; 4) Choose Run Model button

Sampling Method: General Mixture Models   Data Type: Categorical

Number of clusters to test (vector max size 3):  
Vector of clusters to test: 2 3 5  
 Range of clusters to test   Min: 2 Max: 5

Initialization Strategy:  
 RANDOM  
 SMALL\_EM  
 CEM\_INIT  
 SEM\_MAX  
 PARAMETER  
 USER\_PARTITION

Algorithm:  
 EM  
 CEM  
 SEM  
 MAP  
 M

Criteria: 1-Clustering  
 BIC  
 ICL  
 NEC

2-Discriminant Analysis  
 BIC   Blocks:  
 CV  
 DCV

Block Initialization: HD Models:  
 CV\_Random  
 DCV\_Random  
 Diagonal  
# Dimensions (max 3):  
# Positions:

Output analysis:  
 Likelihood  
 Starting Solutions Found  
 Scatter Plot with Ellipses  
 Histogram with Densities

===== PLEASE REFER TO THESE NOTES ===  
/\*\* Cluster Analysis requires the number of clusters to test.  
/\*\* The number of clusters may be entered as a fixed number,  
/\*\* a set of 3 numbers, or a range from min to max number of clusters,  
/\*\* (preferably not more than 10).  
/\*\* Discriminant Analysis requires a label column to be specified,  
/\*\* The Learning Partition must be specified,  
/\*\* with a label column indicated by the user.  
/\*\* The maximum value of the label column must be less than 100.  
/\*\* Select initialization strategy, algorithm, criterion, and stopping rule.  
/\*\* Optionally, select one or multiple models in the browser.

Choose the analysis to conduct  
 Cluster Analysis  
 Discriminant Analysis

Iterations: 500  
Epsilon: 0.0001  
Cancel   Set Model Default Options   Set Model Selected Options   Run Model   Revert Model   Screenshot

Message text here

Status and Log  
Segmentation Completed Successfully - Check the output results

# AroniSmartIntelligence Segmentation User Interface

*Click Segmentation Analysis tab to access the module and Interface before a model is run*

AroniSmartIntelligence™: Statistics, Econometrics, Machine Learning, Data Science, Bayesian Network & Text Analytics ->Segmentation

Welcome | Handbook & Manuals | Statistical Inference | Regression, Econometrics & Time Series | Segmentation | Bayesian Models, Machine Learning, Neural Network, and BigData Analytics | Text Mining and Analytics

General Mixture Models | Finite Mixture Models | Output Viewer | Visualization

**Data Set**

Name: iris\_test  
Variables: 6  
Records: 150

Select Variables:

- All (radio button)
- Deselect (radio button)
- Invert (radio button)

petallength  
petalwidth  
sepalwidth  
sepalwidth

**1-Choose the analysis to conduct**

Choose General Mixture Models

- Cluster Analysis (radio button)
- Discriminant Analysis (radio button)

Epsilon: 0.0001

Learn /Training

Message text here

Status and Log

Segmentation Completed Successfully - Click the output results

**2-Choose number of groups**

Follow the following options for the selected method (Finite Mixture or General Mixture); 5) Click Set Options button; 6) Click Run Model button

Sample Size: 150 Number of Variables: 4

Number of Groups/Strata/Segments/Custers:

**3-Choose number of strategies**

Range of clusters to test Min: 2 Max: 10

Algorithm

- EM (checkbox checked)
- BIC (checkbox checked)
- ICL (checkbox)
- CEM (checkbox)

**4-Set strategies**

Small\_EM (checkbox)

CEM\_INIT (checkbox)

SEM\_MAX (checkbox)

**5-Set algorithms**

Binary\_Fixed  
Binary\_Free  
Diagonal\_Fixed  
Diagonal\_Free  
Ellipsoidal\_Fixed  
Ellipsoidal\_Free  
Heterogeneous\_Fixed  
Heterogeneous\_Free  
High\_Dimensional\_Fixed  
High\_Dimensional\_Free

**6-Set selection criteria**

M (checkbox)

BIC (checkbox checked)

CV (checkbox)

DCV (checkbox)

Blocks:

HD Models:

# Dimensions (max 3):

# Positions:

**7-Set initialization approaches**

Block Initialization:

- CV\_Random (checkbox)
- DCV\_Random (checkbox)
- Diagonal (checkbox)

Set Stop Rule:

**8-Click here to setup model**

Output and Logs

- Likelihood Plot (checkbox checked)
- Starting Points (checkbox checked)
- Scatter Plot (checkbox checked)
- Histogram (checkbox checked)

Set Model Default Options

Set Model Selected Options

**9-Click here to run model**

Run Model

Help on High Dimensional models

==== PLEASE REFER TO THE DOCUMENTATION FOR MORE INFORMATION.  
 /\*\* Cluster Analysis requires a Learning Partition file.  
 /\*\* The number of clusters is determined by the user.  
 /\*\* A set of 3 numbers, or a single number.  
 /\*\* (preferably not more than 10).  
 /\*\* Discriminant Analysis requires a Learning Partition file.  
 /\*\* The Learning Partition file includes records already classified,  
 /\*\* with a label column indicating the record classification.  
 /\*\* The maximum value corresponds to the number of clusters.  
 /\*\* Select initialization strategy from the dropdown menu.  
 /\*\* Optionally, select one or more selection criteria.

# AroniSmartIntelligence Segmentation Models

*General Mixture Models: Click the tab to access the module- Interface before a model is run*

Data Set  
Name: iris\_test  
Variables: 6  
Records: 150

## Select Variables:

All     Deselect     Invert

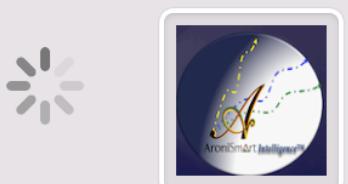
petallength  
petalwidth  
sepallength  
sepalwidth

Cluster Label Variable: class

Weight Variable: --Default Weight--

## Choose General Mixture Models

Cluster Analysis  
 Discriminant Analysis



Learn /Training File for Discriminant Analysis:

## Segmentation Setup

Follow the following steps: 1) Select Variables in the viewer; 2) Choose Segmentation Method; 3) Click Model Set Options button; 4) Choose options for the selected method (Finite Mixture or General Mixture); 5) Click Set Options button; 6) Click Run Model button

General Mixture Models Setup | Help

## Models, Strategies, Algorithms, Criteria, Stopping Rules

Algorithm  
Binary\_Fixed  
Binary\_Free  
Block\_Initialization  
Criterion\_Cluster  
Criterion\_Discriminant  
Diagonal\_Fixed  
Diagonal\_Free  
Ellipsoidal\_Fixed  
Ellipsoidal\_Free  
HD\_SubDimension  
Heterogeneous\_Fixed  
Heterogeneous\_Free  
High\_Dimensional\_Fixed  
High\_Dimensional\_Free  
Split\_Cluster  
Split\_Discretization  
Stop\_Criteria  
Stratified\_Clustering

Gaussian\_p\_L\_I  
Gaussian\_p\_Lk\_I

## Models, Strategies, Criteria and Stopping Rules

```
/** Weights column must contain numeric
/** Initiation Type: USER and USER_PARTITION require init file
/** MAP and M algorithms: only use number of iterations =1 as stopping rule
/** EM and CEM: only use Epsilon stopping rule
/** NBITERATION_EPSILON requires setting both number of iterations and epsilon value
/** minimum epsilon is: 0.00001 and maximum number of iterations is 100000
/** DCV (double cross validation): each learning block must contain at least 10 individuals
/** HD and MAP: require given sub dimension
/** subDimensionFree: only Gaussian_HD_AkiBkQkDk and Gaussian_HD_AkBkQkDk allowed
/** If algorithm is M or MAP, only one model is allowed
/** For HDD model : only M (+USER_PARTITION) or MAP (+USER) algorithm allowed
/** CV (cross validation) or DCV : algorithm must be M; if not CV or DCV impossible
/** High Dimension (Discriminant Analysis): Gaussian_HD_AkiBkQkDk
/** Fixed subDimensionEqual
/** Free: subDimensionFree
```

Cancel

Set Model Default Options

Help

## Strategy

- RANDOM: Start from a random position (Default)
  - SMALL\_EM: Short runs of a number of EM iterations
  - CEM\_INIT: Repetitions of a number of iterations
  - SEM\_MAX: A given number of SEM iterations is run
  - USER: Requires INITFILE
  - USER\_PARTITION: Requires user partition
- Default: SMALL\_EM

## Algorithm

- EM : Expectation Maximization (Default)
- CEM: Classification EM
- SEM : Stochastic EM
- MAP: Maximum a Posteriori
- M : Only M Step

## Criterion

- BIC : Bayesian Information Criterion (Default)
- ICL : Integrated Completed Likelihood
- NEC : Entropy Criterion
- CV : Cross-Validation
- DCV : Double Cross-Validation

## Stopping Rule

- NBITERATION : Maximum number of iterations
  - EPSILON: relative increase of the log-likelihood
  - NBITERATION\_EPSILON : iterations and epsilon
- Default value is 200 iterations and epsilon=0.0001

Click here to run model

I-Click "Help"

# AroniSmartIntelligence Segmentation User Interface

## General Mixture Models: Help

AroniSmart

General Mixture Models

Finite Mixture Models

Output Viewer | Visualization

Data Set

Name: iris\_test

Variables:

6

Records:

150

2-Choose “number of groups”

Select Variables:

 All     Deselect     Invertpetallength  
petalwidth  
sepallength  
sepalwidth

1-Select segmentation attributes (highlighted)

Sample Size: 150  
Number of Groups/Strata/Samples:  
Number of clusters to testDefault options setup!  
The default options for the Selected Analysis method or model are setup. Check the options before running the model.

Edit options, if needed, click Set Options or click Run Model button.

Ok

3-Choose options for the analysis to conduct

Cluster Label Variable: class

Weight Variable: --Default Weight--

Choose General Mixture Models

 Cluster Analysis  
 Discriminant Analysis

Learn /Training File for Discriminant Analysis:

<input checked="" type="checkbox"/> RANDOM	<input type="checkbox"/> BIC
<input type="checkbox"/> SMALL_EM	<input type="checkbox"/> Blocks:
<input type="checkbox"/> INIT	<input type="checkbox"/> CV
<input type="checkbox"/> SEM	<input type="checkbox"/> DCV
<input type="checkbox"/> PARAM	
<input type="checkbox"/> USER_PARTITION	

Block Initialization:	HD Models:
<input type="checkbox"/> CV_Random	# Dimensions (max 3):
<input type="checkbox"/> DCV_Random	<input type="checkbox"/> 1
<input type="checkbox"/> Diagonal	<input type="checkbox"/> 2
Set Stop Rule:	<input type="checkbox"/> # Positions:
NBITERATION_EPS...	<input type="checkbox"/> 3
Iterations: 500	<input type="checkbox"/> 4
Epsilon: .000001	<input type="checkbox"/> 5

Output and Logs
<input checked="" type="checkbox"/> Likelihood Plot
<input checked="" type="checkbox"/> Starting Solutions Found
<input checked="" type="checkbox"/> Scattergram with Ellipses
<input checked="" type="checkbox"/> Histogram with Densities

1-Select Segmentation Method; 3) Click Model Setup button; 4) Choose Segmentation Method; 5) Click Set Options button; 6) Click Run Model button

4-Select segmentation methodology

Data Type: HETEROGENOUS

Binary\_Fixed  
Binary\_Free  
Diagonal\_Fixed  
Diagonal\_Free  
Ellipsoidal\_Fixed  
Ellipsoidal\_Free  
Heterogeneous\_Fixed  
Heterogeneous\_Free  
High\_Dimensional\_Fixed  
High\_Dimensional\_Free  
Spherical\_Fixed  
Spherical\_Free

## ==PLEASE REFER TO THESE NOTES==

```
/** Cluster Analysis requires the number of clusters to test.
/** The number of clusters may be entered as a fixed number,
/** a set of 3 numbers, or a range from min to max number of clusters,
/** (preferably not more than 10 clusters).
/** Discriminant Analysis requires a Learning Partition file.
/** The Learning Partition file includes records already classified,
/** with a label column indicating the record classification.
/** The maximum value corresponds to the number of clusters.
/** Select initialization strategy, algorithm, criterion, and stopping rule.
/** Optionally, select one or multiple models in the browser.
```

Set Model Selected Options

Run Model



Status and Log

Segmentation Completed Successfully - Check the output results

Screenshot



# AroniSmartIntelligence Segmentation Analysis

Using AroniSmartIntelligence™ : Running a General Mixture Model - Model Setup

Data Set  
Name: iris\_test  
Variables: 6  
Records: 150

Select Variables:  
 All     Deselect     Invert  
petallength  
petalwidth  
sepallength  
sepalwidth

Cluster Label Variable: class  
Weight Variable:  
Choose General:  
 Cluster Analysis  
 Discriminant Analysis  
Learn /Training File for Discriminant Analysis:

Segmentation Setup  
Follow the following steps:  
1) Select the Segmentation Method; 2) Click Model Setup button;  
3) Choose Model Type; 4) Click Run Model button  
5) Click Set Options button; 6) Click Run Model button  
General Mixture Models Setup    Help

Sample Size: 150  
Number of Groups/Strata/Samples:  
Number of clusters to test:  
Vector of clusters to test:  
 Range of clusters to test:  
Initialization Strategy:  
 RANDOM  
 SMALL\_EM  
 CEM\_INIT  
 SEM\_MAX  
Algorithm: EM    BIC  
CEM    ICL  
SEM    NEC  
Criteria: 1-Clustering

Segmentation finished successfully  
Check the results in the Output Viewer tab

General Mixture Models Setup    Help

Data Type: HETEROGENOUS

Binary\_Fixed  
Binary\_Free  
Diagonal\_Fixed  
Diagonal\_Free  
Ellipsoidal\_Fixed  
Ellipsoidal\_Free  
Heterogeneous\_Fixed  
Heterogeneous\_Free  
High Dimensional Fixed

1-Click Set Default Options  
to use the default options or

click “Cancel” to start  
over if needed

CV\_Random  
DCV\_Random  
Diagonal  
Stop Rule:  
NBITERATION\_EPS...  
Iterations: 500  
Epsilon: .000001  
# Positions:  
Output and Logs  
 Likelihood Plot  
 Starting Solutions Found  
 Scattergram with Ellipses  
 Histogram with Densities

Cancel

Set Model Default Options

2-Click Set Model Selected  
Options to use the options chosen

==PLEASE REFER TO THESE NOTES==  
/// Cluster Analysis requires the number of clusters to test.  
/// The number of clusters may be entered as a fixed number,  
/// a set of 3 numbers, or a range from min to max number of clusters

3-Click “Run the Model”

/// The maximum value corresponds to the number of clusters.  
/// Select initialization strategy, algorithm, criteria, and stopping rule.  
/// Optionally, select one or multiple models in the browser.

Set Model Selected Options

Run Model

AroniSmart

Status and Log

Running the Segmentation Model: Please wait until the message of termination

Screenshot

# AroniSmartIntelligence Segmentation Analysis

## Using AroniSmartIntelligence™ : Running a General Mixture Model - Model Setup

## Outputs and Logs

AroniGMBICstandard.txt  
AroniGMBICpartition.txt  
AroniGMBICposteriorProbabilities.txt  
AroniGMNumericComplete.txt  
AroniGMBIClabel.txt  
MixModel22-Mar-22.keys  
AroniGMComplete.txt  
AroniGMBICparameter.txt  
AroniGMBIClikelihood.txt  
AroniGMBICnumericLikelihood.txt  
AroniGMBestModelDetails.txt  
AroniGMBICError.txt  
AroniGMBICnumericStandard.txt  
AroniGMerrorModel.txt  
AroniGMerrorMixmod.txt  
MixModel22-Mar-22.dat  
AroniGMBestModelLabels.txt

Output files with results  
Click a file to view results  
in Output viewer e



## Output viewer

## Strategy :

Initial start parameters method :  
strategyInitName : RANDOM  
nbTryInInit : 500

Number of tries : 1  
Number of algorithms in the strategy : 3  
Algorithm 1  
Type : EM  
Stopping rule : NBITERATION\_EPSILON  
Number of iterations : 500  
Set tolerance (xml criterion) : 0.000001

Algorithm 2  
Type : EM  
Stopping rule : NBITERATION\_EPSILON  
Number of iterations : 500  
Set tolerance (xml criterion) : 0.000001

Algorithm 3  
Type : EM  
Stopping rule : NBITERATION\_EPSILON  
Number of iterations : 200  
Set tolerance (xml criterion) : 0.001000

## Number of Clusters : 2

## Model Type : Gaussian Ellipsoidal Model : pk\_Lk\_C

## Component 1

Message text here



## Status and Log

Segmentation Completed Successfully - Check the output results

Screenshot

AroniSmart

Click here to access  
Output Viewer

Output



End



Clear

Clear or  
navigate output



Top

AroniSmartIntelligence Segmentation User Interface  
*Click Segmentation Analysis tab to access the module - Output Viewer*

Choose segment and variables to plot



Click on Visualization tab

Segment: 1

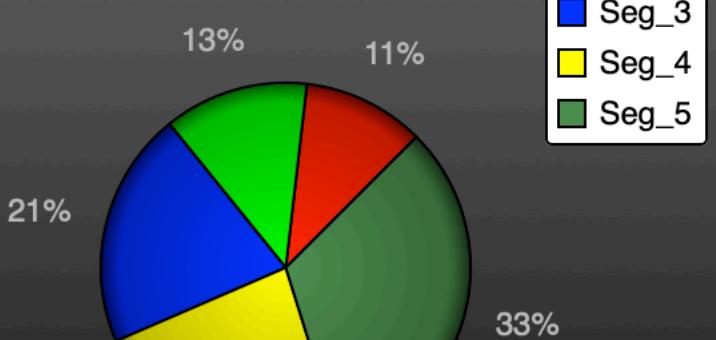
X Variable: petallength

Y Variable: petalwidth

Select Segment

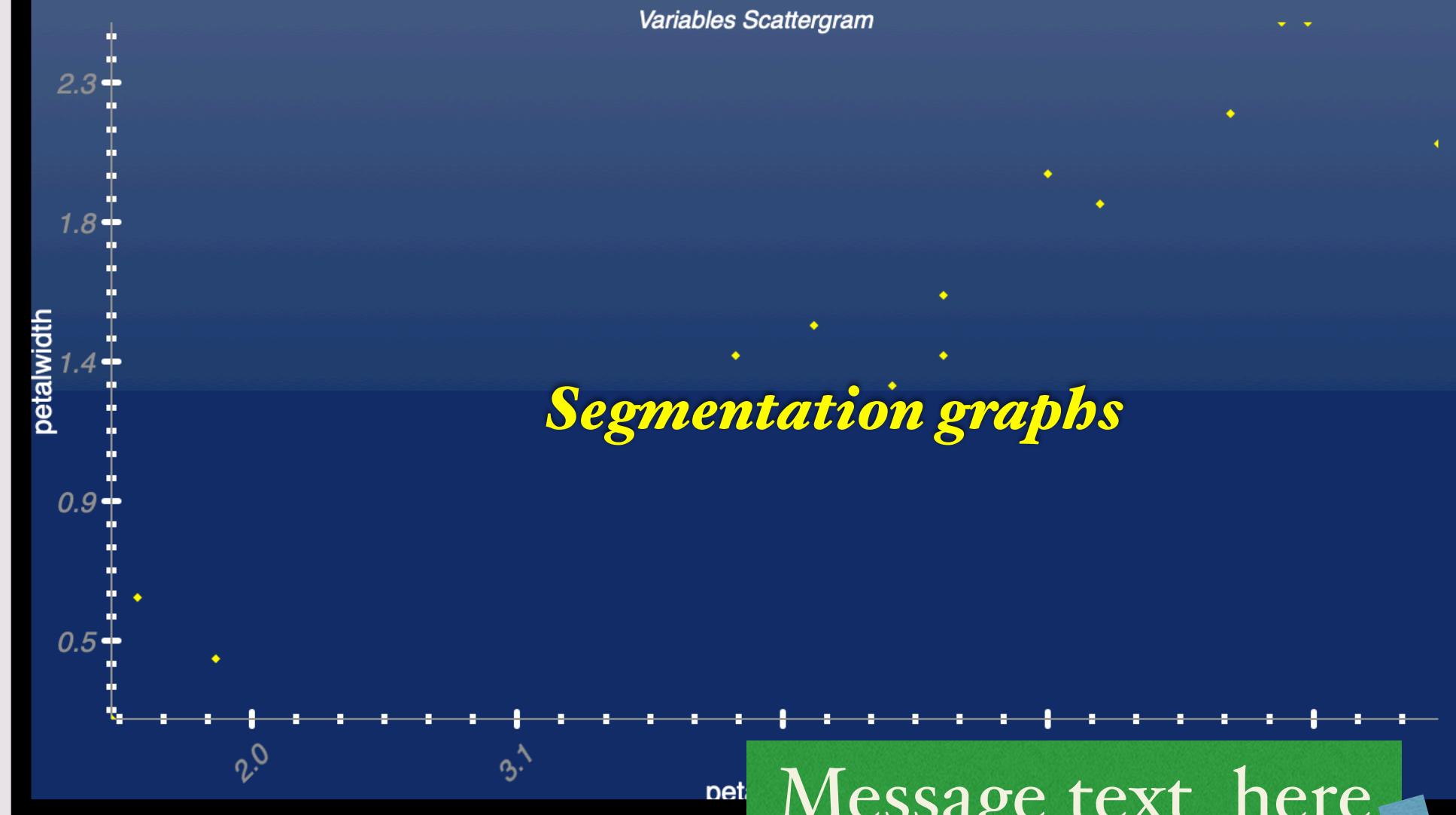
Select variables to plot

Segment Proportion



Refresh Graphs

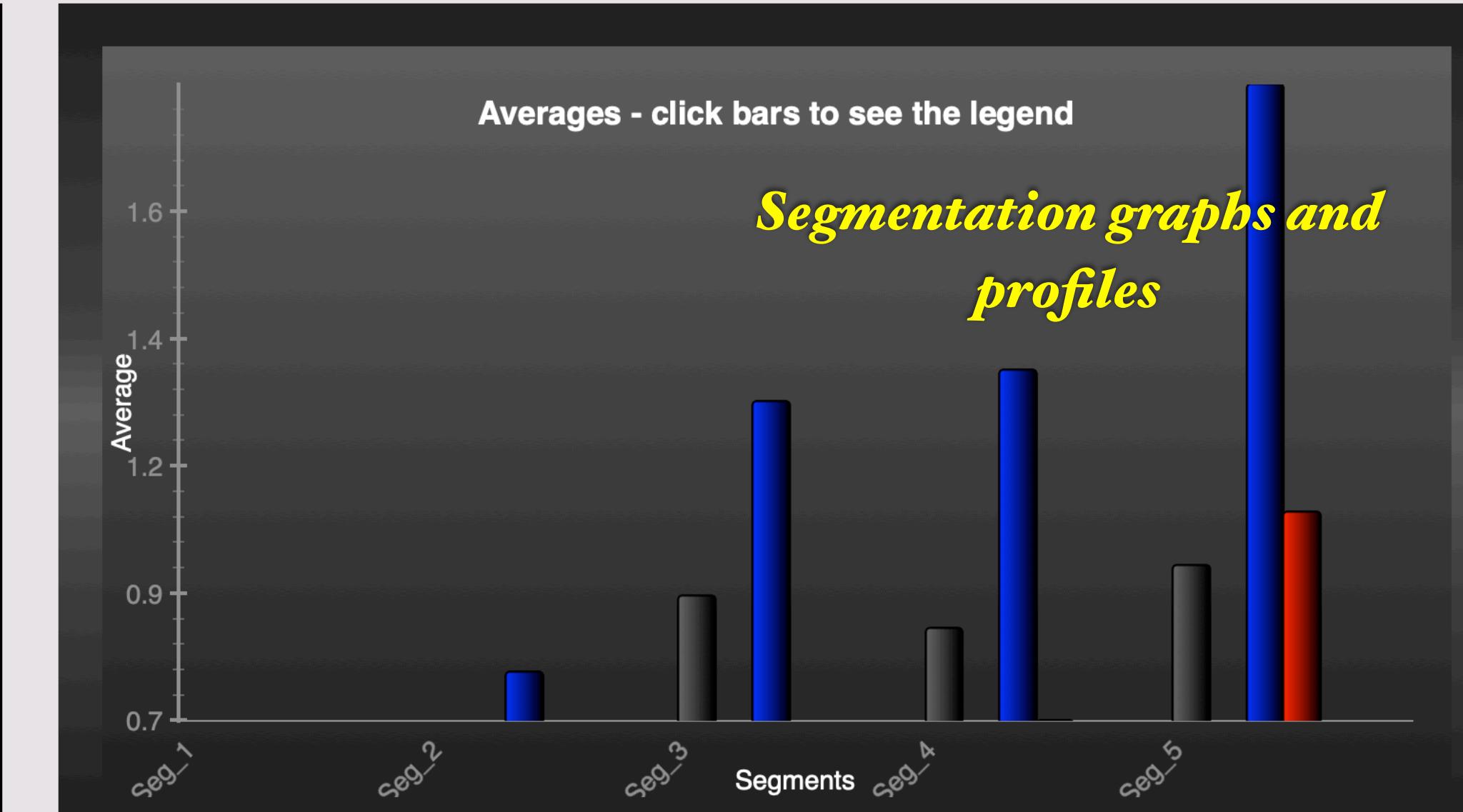
Variables Scattergram



Message text here

Averages - click bars to see the legend

**Segmentation graphs and profiles**



Status and Log

Segmentation Completed Successfully - Check the output results

Screenshot

# AroniSmartIntelligence User Interface

*AroniSmartIntelligence™: Visualization after a General Mixture model has run*

Data Set

Name: iris\_test

Variables: 6

Records: 150

Select Variables:

- All
- Deselect

petallength  
petalwidth  
sepalength  
sepalwidth

Follow the following Steps: 1) Select Data Set; 2) Click Segmentation Setup; 3) Click Model Selection Tab

Segmentation Setup

3-Choose “number of groups”

2-Select segmentation attributes (highlighted)

Entity Variables & Groups(Seg)

Number of Entities:  
Number of Variables:  
 Fixed Groups: 3  
 Search Range:  
 Min: 1 Max: 6

4-Choose cluster initialization and start method

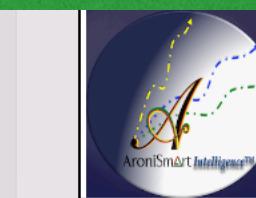
Initial Classification:  
 Initial Parameters Estimates  
 Automatic Initial Grouping  
 Initial Probability Grouping

Use K-Means Starts

Choice of Analysis and Setup

- Simulation
- Assess Number of Segments
- Fit a Fixed Number of Segments
- Fit a Range of Segments
- Perform Discriminant Analysis
- Predict New Data
- Estimate Parameter & Allocate

5-Choose the analysis to conduct



Input File

Input Parameters File (disabled for some analyses)

Choose...

Output File

Set Model Default Options

Default

Cancel

Set Options

Run Model

See Next Slide

Status and Log

Segmentation Completed Successfully - Check the output results

Screenshot



# AroniSmartIntelligence Segmentation Analysis

## Using AroniSmartIntelligence™ : Running a Finite Mixture Gaussian Model - Model Setup

1-Click Finite Mixture Tab for segmentation methodology

2-Select variance structure

3-Choose pct of data used for model development

4-Slide to select unstandardized, standardized or both

5-Enter Beta

6-Select segmentation attributes (highlighted)

7-Choose “number of groups”

8-Choose data standardization method

9-Choose cluster initialization and start method

10-Choose segmentation setup

11-Choose segmentation method (Finite Mixture or General Mixture)

12-Click Set Options button

13-Click Run Model button

14-Check the output results

Data Set

Name: iris\_test

Variables: 6

Records: 150

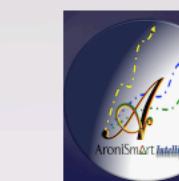
Select Variables:

- All
- Deselect
- Invert

petallength  
petalwidth  
sepallength  
sepalwidth

Follow the following Steps: 1) Select Data Set; 2) Click Bootstrap setup; 3) Click Model Setup

Segmentation Setup

**Segmentation Model Options Set**

You May Run the Segmentation. Push OK Button

Ok

Entities, Variables &amp; Groups(Seg)

Number of Entities:

Number of Variables:

- Fixed Groups: 3
- Search Range:

Min:

Percent of Data Used:

67

Cluster Initialization

- Outright Initial Classification
- Initial Parameters Estimation
- Automatic Initial Grouping
- Initial Probability Grouping

optional -Choose output directory (optional)

optional -choose input file with a model

Data: Unstandardized&lt;=Both=&gt;Standardized

- Nearest Neighbor
- Average
- Centroid
- Flexible Sorting >BETA
- Ward's Method

1317

1117

1357

67

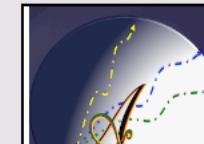
12-Click if extra options needed (optional)

13-Choose covariance structure

14-Enter random seeds (optional)

optional -choose output file

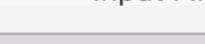
15-click “Model Default Option before Setup”



Default Options

 Hierarchical Clustering=>>

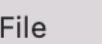
Input File



16-click “Set Options”

Choose...

Output File



Cancel

Set Options

Run Model

Screenshot

Action



Screenshot

Action

Status and Log

Segmentation Completed Successfully - Check the output results

# AroniSmartIntelligence Segmentation Analysis

## Using AroniSmartIntelligence™ : Running a Finite Mixture Gaussian Model - Model Setup

Outputs and Logs

- AroniDataAndCompleteClassification.out
- aroniFMClassLabel.out
- aroniFMStandardCovariance.out
- aroniFMfileinput.out
- AroniLogNumericComplete.out

Select Output file

Output Results files

petallength	petalwidth	sepallength	sepalwidth	Segment
5.5	1.8	6.5	3	0
4.1	1	5.8	2.7	0
4	1.3	6.1	2.8	1
5.7	2.3	6.9	3.2	1

Output

4.7	1.2	6.1	2.8	1
4.3	1.3	6.4	2.9	1
6.9	2.3	7.7	2.6	0
6.7	2	7.7	2.8	0
4.4	1.4	6.6	3	1
3.5	1	5.7	2.6	1
4.8	1.4	6.8	2.8	1
3.8	1.1	5.5	2.4	0
4.9	1.8	6.3	2.7	1
5	1.7	6.7	3	1
3.7	1	5.5	2.4	0
4.5	1.5	6	2.9	1
3.9	1.2	5.8	2.7	0
5.7	2.1	6.7	3.3	1
5.1	1.6	6	2.7	0
6	1.8	7.2	3.2	0
4.5	1.5	5.4	3	1
5.8	1.6	7.2	3	0
4.5	1.6	6	3.4	1
4	1.3	5.5	2.5	1
4.8	1.8	6.2	2.8	0
6.1	1.9	7.4	2.8	0
4.7	1.5	6.7	3.1	1
4.4	1.2	5.5	2.6	1
4.4	1.3	6.3	2.3	1
1.5	0.1	4.9	3.1	1
4.6	1.4	6.1	3	0
4.9	1.8	6.1	3	0
6.4	2	7.9	3.8	2
4.1	1.3	5.6	3	1
1.5	0.2	5.4	3.7	2
4	1.2	5.8	2.6	1
3.3	1	5	2.3	1
1.6	0.2	4.8	3.4	2

Message text here



End



Clear



Top

Status and Log

Segmentation Finished

Screenshot

# AroniSmartIntelligence Segmentation Analysis

*AroniSmartIntelligence™: Finite Mixture Models Results Output after the model has run*

AroniSmartIntelligence™: Statistics, Econometrics, Machine Learning, Data Science, Bayesian Network & Text Analyt

Welcome | Handbook & Manuals | Statistical Inference | Regression, Econometrics & Time Series | Segmentation | Bayesian Models, Machine Learning, N

General Mixture Models | Finite Mixture Models | Output Viewer | **Visualization**

Choose segment and variables to plot

Select Segment

Select variables to plot

Segment Proportion

Segment 0: 37%  
Segment 1: 33%  
Segment 2: 30%

Variables Scattergram

petalwidth

petallength

Segment graphs

Averages - click bars to see the legend

Average

Segments

Plot for segment 0

Message text here

Status and Log

Segmentation Finished

Screenshot

AroniSmart

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*AroniSmartIntelligence™: Visualization after a Finite Mixture model has run*