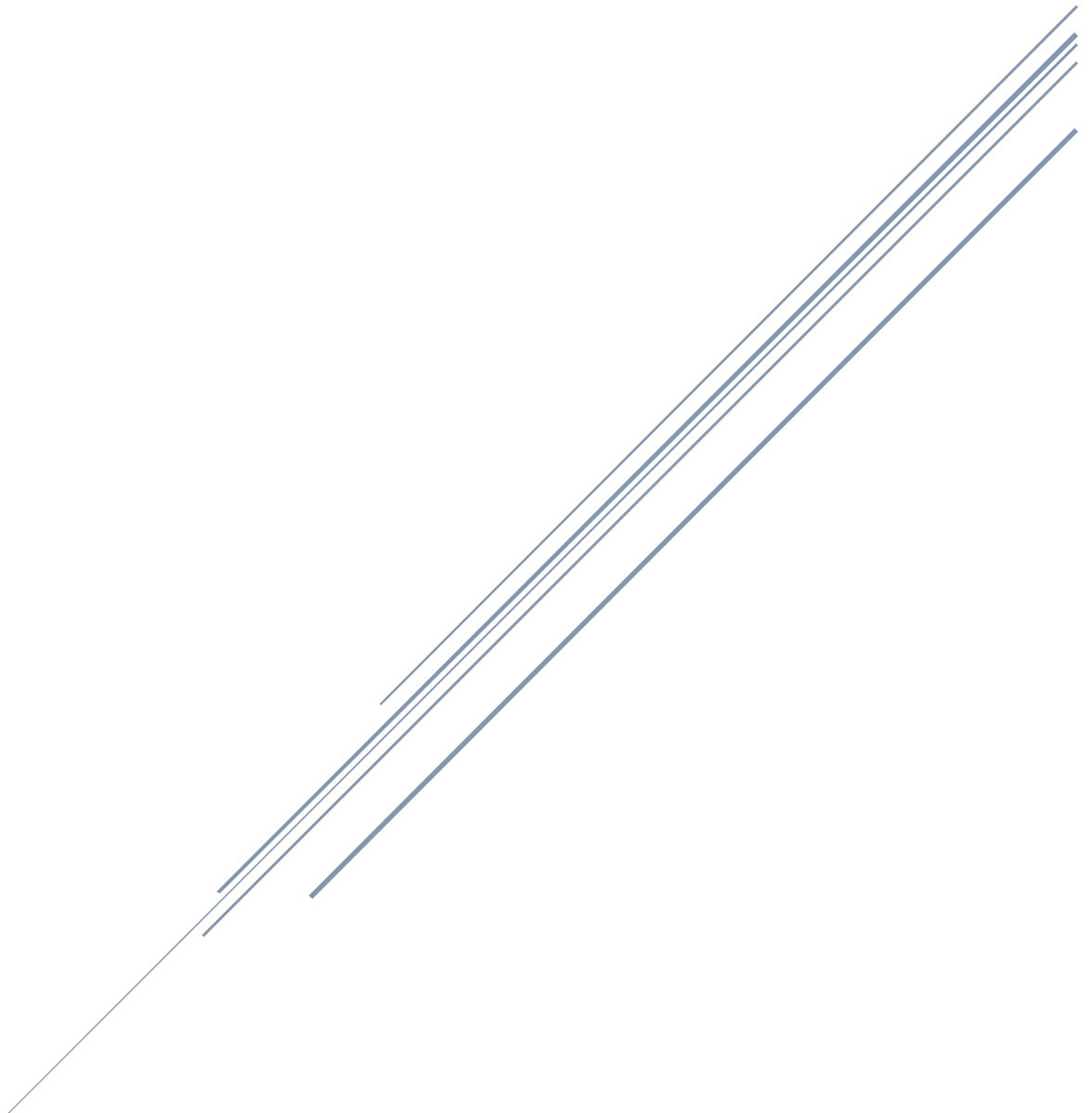


RLM API DOCUMENTATION



rlm_network Class

class rlm_network

- Controls Network Creation and RLM objects training state.

Constructor:

RlmNetwork()

- default constructor, creates "RyskampNeuralNetworks" database

RlmNetwork(string databaseName)

- string databaseName
 - sets your preferred database name

Methods and Properties

void NewNetwork

- Sets up a new network and sets the network as current network to use in training.

Syntax:

NewNetwork(string name, List<rlm_io> inputs, List<rlm_io> outputs = null)

- string name
 - Your preferred network name
- List<rlm_io> inputs
 - List of input types for your created network
- List<rlm_io> outputs
 - List of output types for your created network

bool LoadNetwork

- Loads selected network's data (input types, output types, training data, network settings) from the Database into memory lists.
- Is used as an indicator if there's a need to create a new network.
- Returns true if network is successfully loaded.

Syntax:

LoadNetwork(string name)

- string name
 - the network you prefer to load

Alternate Syntax:

LoadNetwork()

- Loads the first network in the database, sorted by ID

Int64 SessionStart

- Sets the state of the session to started
- Returns the Session ID of the current session
- Cannot be used again prior to SessionEnd()

Syntax:

SessionStart()

void SessionEnd

- Halts the current session
- Updates current session's score and Time Stop Property of the session

Syntax:

SessionEnd(double FinalSessionScore)

- double FinalSessionScore
 - the score of the current session

void ScoreCycle

- Saves cycle information to database and updates with the score

Syntax:

ScoreCycle(int64 CycleID, double CycleScore)

- int64 CycleID
 - Unique identifier of the Cycle
- double CycleScore
 - Score the engine attained this cycle

int NumSessions

- The set number of sessions

int StartRandomness

- The starting percentage of randomness to be used by the engine

int EndRandomness

- The last percentage of randomness where the engine halts

double MaxLinearBracket

- Maximum value set for the range of Linear Type Training

double MinLinearBracket

- Minimum value set for the range of Linear Type Training

RlmIO Object

class RlmIO

- object type for input and output settings

Constructor:

RlmIO(string **name**, string **dotNetType**, double **min**, double **max**, long **ID = 0**)

- string **name**
 - Sets RlmIO Name property
- string **dotNetType**
 - Sets RlmIO DotNetType property which assigns the object type in .NET
- double **min**
 - Sets RlmIO Min property which sets the minimum range value of the input or output
- double **max**
 - Sets RlmIO Min property which sets the maximum range value of the input or output
- Long **ID**
 - Assigns unique identifier to the input/output

Methods and Properties

string **Name**

string **DotNetType**

double **Min**

double **Max**

long **ID**

rlm_cycles Class

class rlm_cycles

- handles processing of training data

Methods and Properties

RlmCyclecompleteArgs RunCycle

- starts training

Syntax:

RlmCyclecompleteArgs **RunCycle**(RlmNetwork rnnNet, int64 **sessionID**, List<RlmIOWithValue> **input_values**, bool **Learn**, List< RlmIOWithValue> **output_values** = null, double **cyclescore** = 0.000, IEnumerable<RlmIdea> **ideas** = null)

- RlmNetwork **rnnNet**
 - current network being used
- int64 **sessionID**
 - unique identifier for the session being started
- List<RlmIOWithValue> **input_values**
 - Inputs with stored values
- bool **Learn**
 - Indicator that if true, will start training, if false, will run prediction
- List< RlmIOWithValue> **output_values**
 - Outputs with stored values
- double **cyclescore**
 - Score of the current cycle
- IEnumerable<RlmIdea> **ideas**
 - Gives bias to the RLM on what to output

RlmCyclecompleteArgs Object

class RlmCyclecompleteArgs

- object type that stores cycle outputs with the rlm network

Constructor:

RlmCyclecompleteArgs (RlmCycleOuput cycleOutput, RlmNetwork network, RlmNetworkType rnnType)

- RlmCycleOuput cycleOutput
- RlmNetwork network
 - current RLM Network
- RlmNetworkType rnnType
 - current RLM Network Type

RlmCycleOutput Object

class rlm_cycle_output

- object type that stores cycle output with cycle information

Constructor:

RlmCycleOutput (long cycleID, long solutionID, IEnumerable<Output_Values_Solution> outputsWithVal, string CycleGUID)

- long cycleID
 - unique identifier for the cycle
- long solutionID
 - unique identifier for the solution
- IEnumerable<Output_Values_Solution> outputsWithVal
- string CycleGUID