AMORE++

pre-alpha (active development aiming to release a beta version this summer (2011))

Generated by Doxygen 1.7.4

Sat Jul 30 2011 04:41:16

Contents

Chapter 1

The AMORE++ package

1.1 Introduction

Here you will find the documentation of the C++ component of the AMORE++ R package.

The AMORE++ package is a new version of the publicly available AMORE package for neural network training and simulation under R

1.2 Motivation

Since the release of the previous version of the AMORE many things have changed in the R programming world.

The advent of the Reference Classes and of packages like Rcpp, inline and RUnit compel us to write a better version of the package in order to provide a more useful framework for neural network training and simulation.

1.3 Road Map

This project is currently very active and the development team intends to provide a beta version as soon as this summer (2011)

Chapter 2

Class Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 4

File Index

4.1 File List

Here is a list of all files with brief descriptions:

Chapter 5

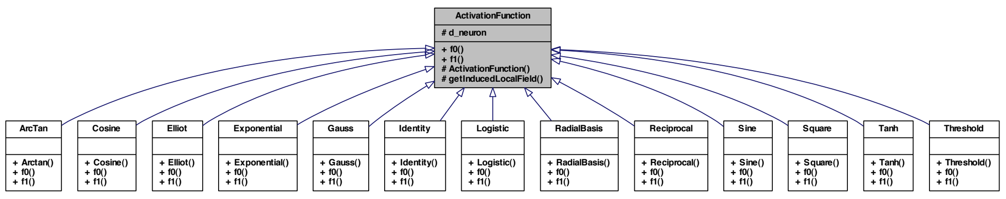
Class Documentation

5.1 ActivationFunction Class Reference

class ActivationFunction -

`#include <ActivationFunction.h>`

Inheritance diagram for ActivationFunction:



Public Member Functions

- virtual double f0 ()=0
- virtual double f1 ()=0

Protected Member Functions

- ActivationFunction (NeuronPtr neuronPtr)
- double getInducedLocalField ()

Protected Attributes

- NeuronWeakPtr d_neuron

5.1.1 Detailed Description

class ActivationFunction -

Definition at line 4 of file ActivationFunction.h.

5.1.2 Constructor & Destructor Documentation

5.1.2.1 ActivationFunction::ActivationFunction (**NeuronPtr** ***neuronPtr***) [protected]

Definition at line 12 of file ActivationFunction.cpp.

```
                                                       :
  d_neuron(neuronPtr)
{
}
```

5.1.3 Member Function Documentation

5.1.3.1 virtual double ActivationFunction::f0 ( ) [pure virtual]

Implemented in ArcTan, Cosine, Elliot, Exponential, Gauss, Identity, Logistic, RadialBasis, Reciprocal, Sine, Square, Tanh, and Threshold.

5.1.3.2 virtual double ActivationFunction::f1 ( ) [pure virtual]

Implemented in ArcTan, Cosine, Elliot, Exponential, Gauss, Identity, Logistic, RadialBasis, Reciprocal, Sine, Square, Tanh, and Threshold.

5.1.3.3 double ActivationFunction::getInducedLocalField ( ) [protected]

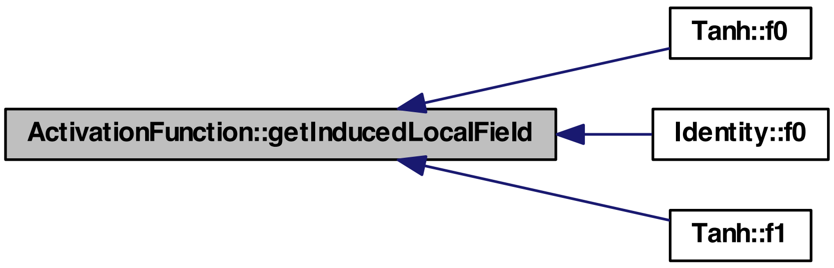
Definition at line 18 of file ActivationFunction.cpp.

References d_neuron.

Referenced by Tanh::f0(), Identity::f0(), and Tanh::f1().

```
{
  NeuronPtr neuronPtr(d_neuron.lock());
  return neuronPtr->getInducedLocalField();
}
```

Here is the caller graph for this function:



5.1.4 Member Data Documentation

5.1.4.1 NeuronWeakPtr ActivationFunction::d_neuron `[protected]`

Definition at line 7 of file ActivationFunction.h.

Referenced by getInducedLocalField().

The documentation for this class was generated from the following files:

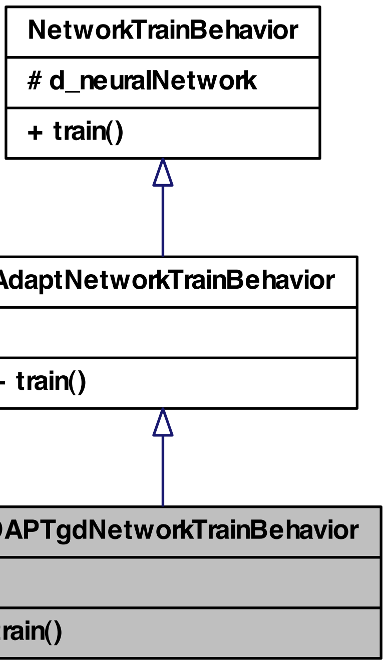
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Activation
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/ActivationFunction.cpp

5.2 ADAPTgdNetworkTrainBehavior Class Reference

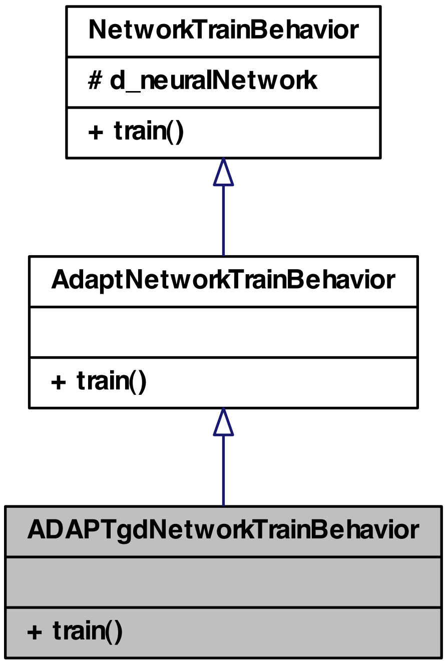
class ADAPTgdNetworkTrainBehavior -

`#include <ADAPTgdNetworkTrainBehavior.h>`

Inheritance diagram for ADAPTgdNetworkTrainBehavior:



Collaboration diagram for ADAPTgdNetworkTrainBehavior:



Public Member Functions

- Rcpp::List train (Rcpp::List parameterList)

5.2.1 Detailed Description

class ADAPTgdNetworkTrainBehavior -

Definition at line 5 of file ADAPTgdNetworkTrainBehavior.h.

5.2.2 Member Function Documentation

5.2.2.1 ADAPTgdNetworkTrainBehavior::train (Rcpp::List *parameterList*) `[virtual]`

Implements AdaptNetworkTrainBehavior.

Definition at line 8 of file ADAPTgdNetworkTrainBehavior.cpp.

References NetworkTrainBehavior::d_neuralNetwork.

```
{

  int numberOfEpochs = as<int> (parameterList["numberOfEpochs"]);
  Rcpp::NumericMatrix inputMatrix = as<Rcpp::NumericMatrix> (
      parameterList["inputMatrix"]);
  Rcpp::NumericMatrix targetMatrix = as<Rcpp::NumericMatrix> (
      parameterList["targetMatrix"]);
  int numberOfEpochs = as<int> (parameterList["numberOfEpochs"]);
  int showStep = as<int> (parameterList["showStep"]);


  // Rcpp::NumericMatrix outputMatrix(outputSize(), numericMatrix.ncol());
  std::vector<double>::iterator inputIterator(inputMatrix.begin());
  std::vector<double>::iterator targetIterator(targetMatrix.begin());


  int maxShows = (numberOfEpochs > showStep) ? numberOfEpochs / showStep : 1;
  for (int idShow = 0; idShow < maxShows; ++idShow)
    {
      for (int step = 0; step < showStep; ++step)
        {
          for (int idRow = 0; idRow < inputMatrix.ncol(); idRow++)
            {
              d_neuralNetwork->writeInput(inputIterator);
              d_neuralNetwork->singlePatternForwardAction();

              d_neuralNetwork->singlePatternBackwardAction();
            }
        }
    }
}
```

The documentation for this class was generated from the following files:

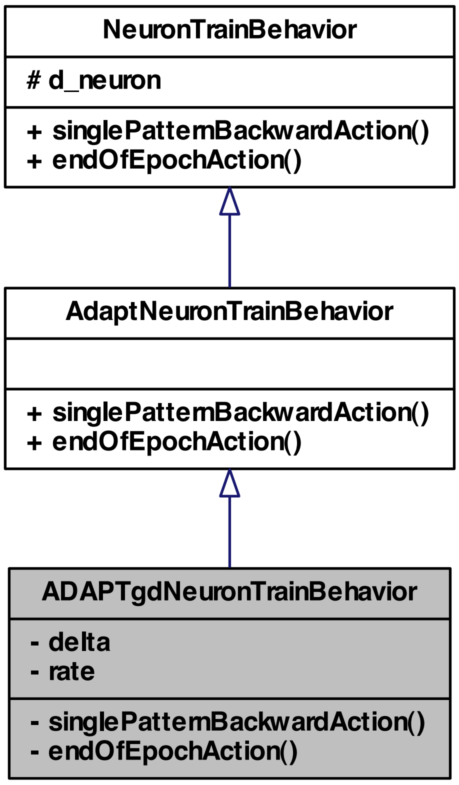
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/ADAPTgdN

5.3 ADAPTgdNeuronTrainBehavior Class Reference

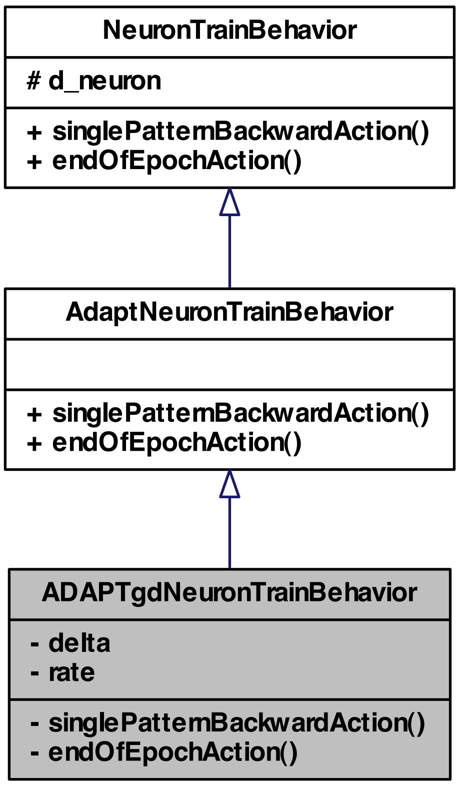
class ADAPTgdNeuronTrainBehavior -

`#include <ADAPTgdNeuronTrainBehavior.h>`

Inheritance diagram for ADAPTgdNeuronTrainBehavior:



Collaboration diagram for ADAPTgdNeuronTrainBehavior:



Private Member Functions

- void singlePatternBackwardAction ()
- void endOfEpochAction ()

Private Attributes

- double delta
- double learning rate

5.3.1 Detailed Description

class ADAPTgdNeuronTrainBehavior -

Definition at line 5 of file ADAPTgdNeuronTrainBehavior.h.

5.3.2 Member Function Documentation

5.3.2.1 void ADAPTgdNeuronTrainBehavior::endOfEpochAction ( ) [private, virtual]

Implements AdaptNeuronTrainBehavior.

5.3.2.2 void ADAPTgdNeuronTrainBehavior::singlePatternBackwardAction ( ) [private, virtual]

Implements AdaptNeuronTrainBehavior.

5.3.3 Member Data Documentation

5.3.3.1 double ADAPTgdNeuronTrainBehavior::delta [private]

Definition at line 8 of file ADAPTgdNeuronTrainBehavior.h.

5.3.3.2 double learning ADAPTgdNeuronTrainBehavior::rate [private]

Definition at line 9 of file ADAPTgdNeuronTrainBehavior.h.

The documentation for this class was generated from the following file:

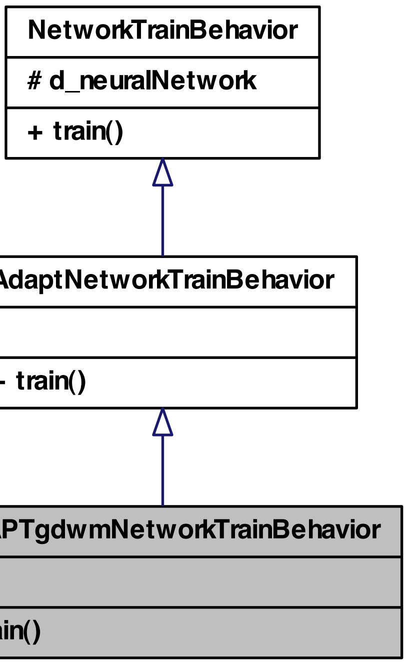
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgc

5.4 ADAPTgdwmNetworkTrainBehavior Class Reference

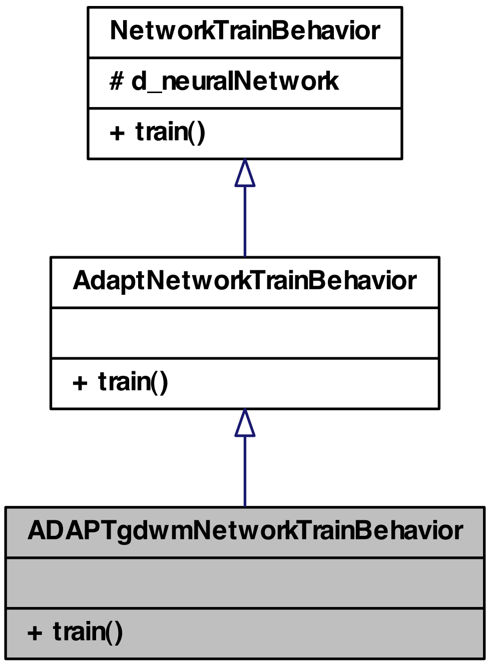
class ADAPTgdwmNetworkTrainBehavior -

`#include <ADAPTgdwmNetworkTrainBehavior.h>`

Inheritance diagram for ADAPTgdwmNetworkTrainBehavior:



Collaboration diagram for ADAPTgdwmNetworkTrainBehavior:



Public Member Functions

- Rcpp::List train (Rcpp::List parameterList)

5.4.1 Detailed Description

class ADAPTgdwmNetworkTrainBehavior -

Definition at line 5 of file ADAPTgdwmNetworkTrainBehavior.h.

5.4.2 Member Function Documentation

5.4.2.1 Rcpp::List ADAPTgdwmNetworkTrainBehavior::train (Rcpp::List *parameterList*) [virtual]

Implements AdaptNetworkTrainBehavior.

The documentation for this class was generated from the following file:

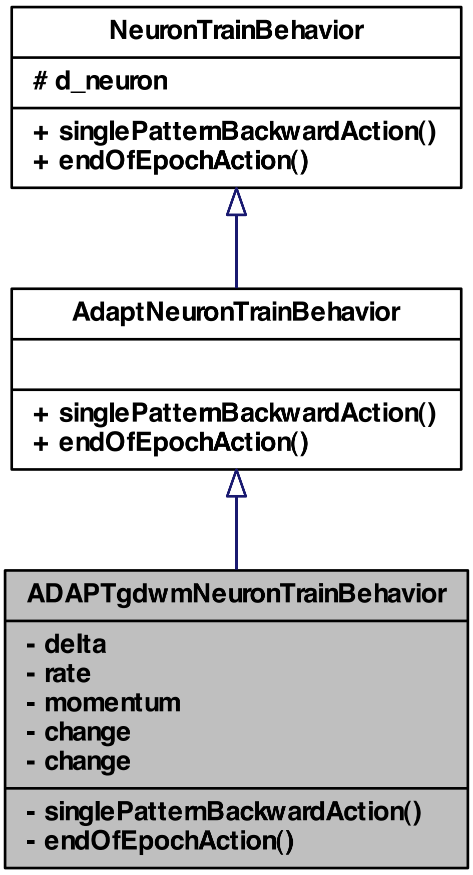
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.5 ADAPTgdwmNeuronTrainBehavior Class Reference

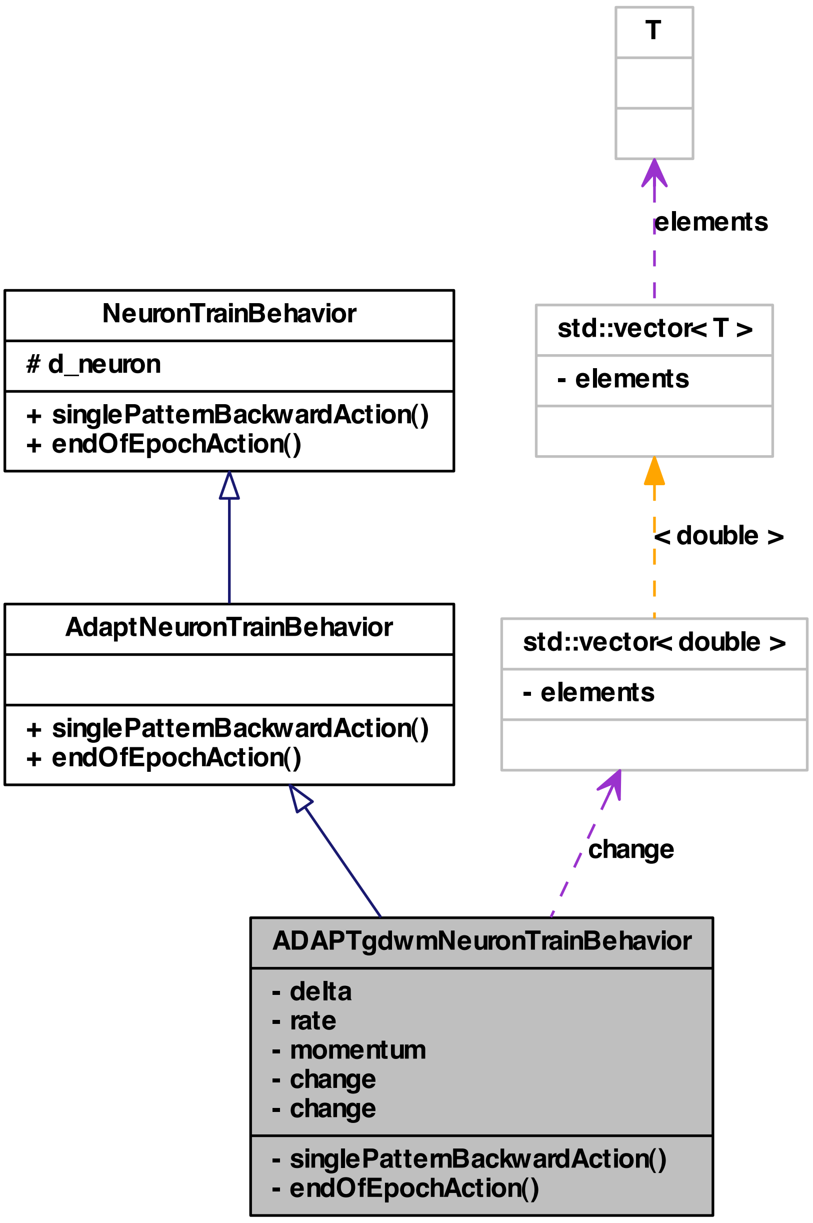
class ADAPTgdwmNeuronTrainBehavior -

`#include <ADAPTgdwmNeuronTrainBehavior.h>`

Inheritance diagram for ADAPTgdwmNeuronTrainBehavior:



Collaboration diagram for ADAPTgdwmNeuronTrainBehavior:



Private Member Functions

- void singlePatternBackwardAction ()
- void endOfEpochAction ()

Private Attributes

- double delta
- double learning rate
- double momentum
- std::vector< double > former weight change
- double former bias change

5.5.1 Detailed Description

class ADAPTgdwmNeuronTrainBehavior -

Definition at line 5 of file ADAPTgdwmNeuronTrainBehavior.h.

5.5.2 Member Function Documentation

5.5.2.1 void ADAPTgdwmNeuronTrainBehavior::endOfEpochAction ( ) `[private, virtual]`

Implements AdaptNeuronTrainBehavior.

5.5.2.2 void ADAPTgdwmNeuronTrainBehavior::singlePatternBackwardAction ( ) `[private, virtual]`

Implements AdaptNeuronTrainBehavior.

5.5.3 Member Data Documentation

5.5.3.1 std::vector<double> former weight **ADAPTgdwmNeuronTrainBehavior::change** `[private]`

Definition at line 11 of file ADAPTgdwmNeuronTrainBehavior.h.

5.5.3.2 double former bias **ADAPTgdwmNeuronTrainBehavior::change** `[private]`

Definition at line 12 of file ADAPTgdwmNeuronTrainBehavior.h.

5.5.3.3 double ADAPTgdwmNeuronTrainBehavior::delta `[private]`

Definition at line 8 of file ADAPTgdwmNeuronTrainBehavior.h.

5.5.3.4 double ADAPTgdwmNeuronTrainBehavior::momentum `[private]`

Definition at line 10 of file ADAPTgdwmNeuronTrainBehavior.h.

5.5.3.5 double learning ADAPTgdwmNeuronTrainBehavior::rate `[private]`

Definition at line 9 of file ADAPTgdwmNeuronTrainBehavior.h.

The documentation for this class was generated from the following file:

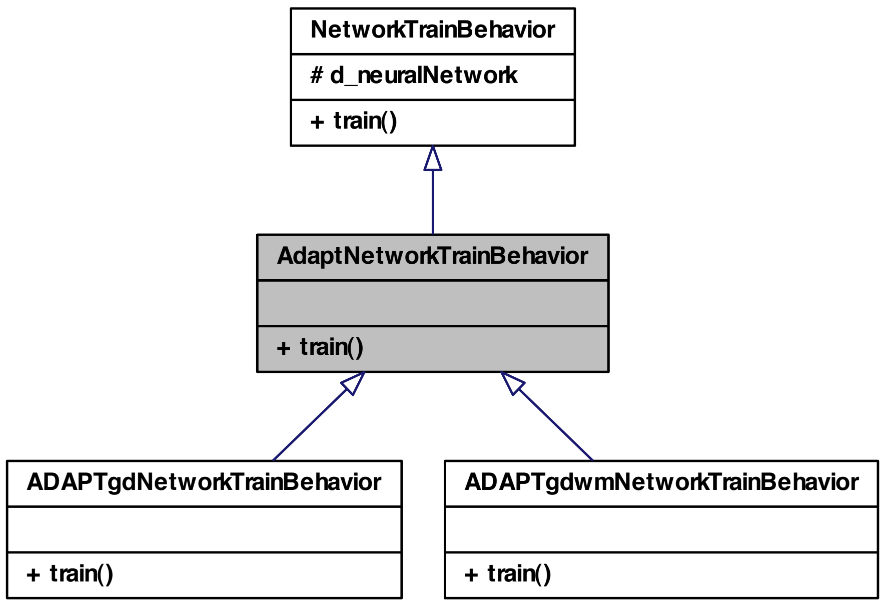
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgc

5.6 AdaptNetworkTrainBehavior Class Reference

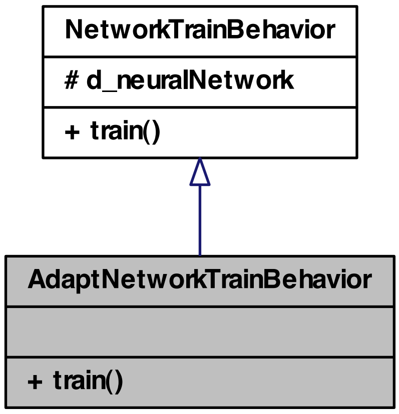
class AdaptNetworkTrainBehavior -

`#include <AdaptNetworkTrainBehavior.h>`

Inheritance diagram for AdaptNetworkTrainBehavior:


NetworkTrainBehavior
# d_neuralNetwork
+ train()
AdaptNetworkTrainBehavior
+ train()
ADAPTgdNetworkTrainBehavior
+ train()
ADAPTgdwmNetworkTrainBehavior
+ train()

Collaboration diagram for AdaptNetworkTrainBehavior:



Public Member Functions

- virtual Rcpp::List train (Rcpp::List parameterList)=0

5.6.1 Detailed Description

class AdaptNetworkTrainBehavior -

Definition at line 5 of file AdaptNetworkTrainBehavior.h.

5.6.2 Member Function Documentation

5.6.2.1 virtual Rcpp::List AdaptNetworkTrainBehavior::train (Rcpp::List *parameterList*) [pure virtual]

Implements NetworkTrainBehavior.

Implemented in ADAPTgdNetworkTrainBehavior, and ADAPTgdwmNetworkTrainBehavior.

The documentation for this class was generated from the following file:

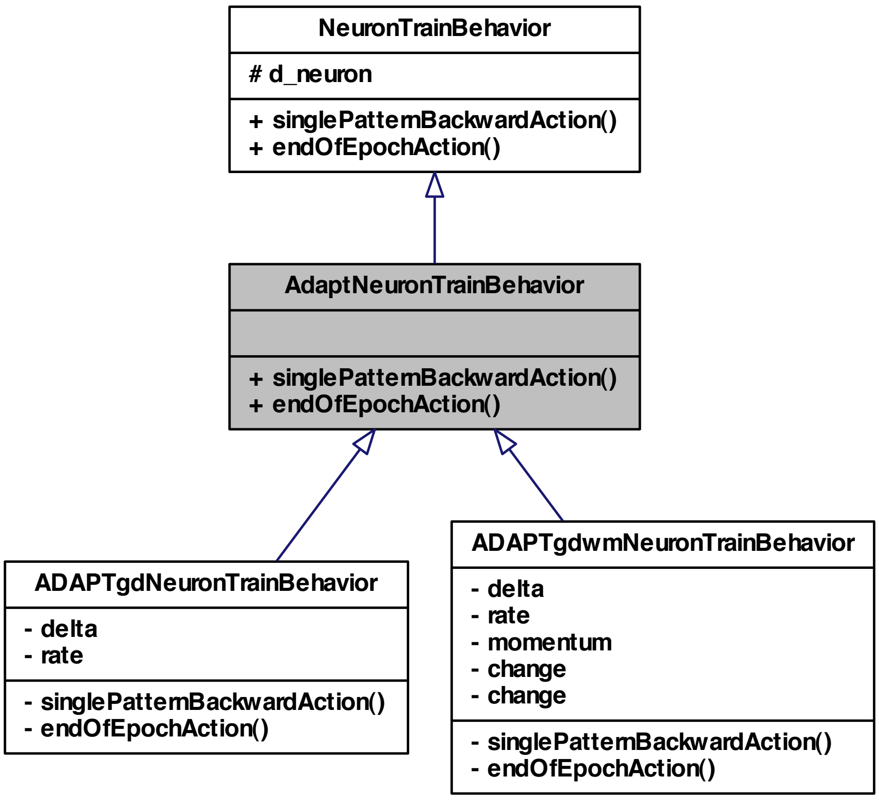
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/AdaptNet

5.7 AdaptNeuronTrainBehavior Class Reference

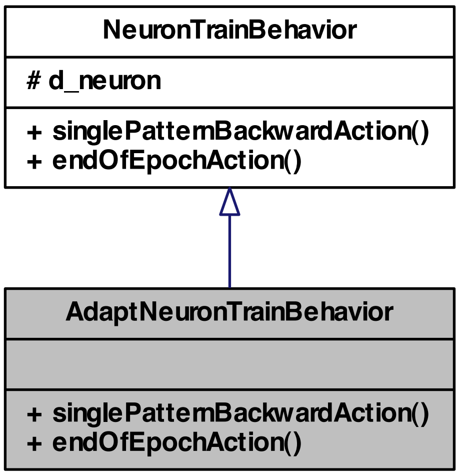
class AdaptNeuronTrainBehavior -

```
#include <AdaptNeuronTrainBehavior.h>
```

Inheritance diagram for AdaptNeuronTrainBehavior:



Collaboration diagram for AdaptNeuronTrainBehavior:



Public Member Functions

- virtual void singlePatternBackwardAction ()=0
- virtual void endOfEpochAction ()=0

5.7.1 Detailed Description

class AdaptNeuronTrainBehavior -

Definition at line 5 of file AdaptNeuronTrainBehavior.h.

5.7.2 Member Function Documentation

5.7.2.1 virtual void AdaptNeuronTrainBehavior::endOfEpochAction ( ) `[pure virtual]`

Implements NeuronTrainBehavior.

Implemented in ADAPTgdNeuronTrainBehavior, and ADAPTgdwmNeuronTrainBehavior.

5.7.2.2 virtual void AdaptNeuronTrainBehavior::singlePatternBackwardAction ( ) [pure virtual]

Implements NeuronTrainBehavior.

Implemented in ADAPTgdNeuronTrainBehavior, and ADAPTgdwmNeuronTrainBehavior.

The documentation for this class was generated from the following file:

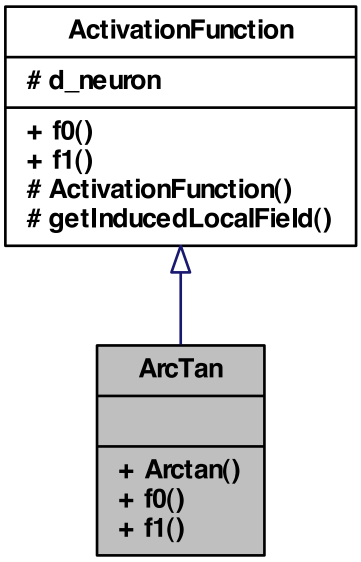
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.8 ArcTan Class Reference

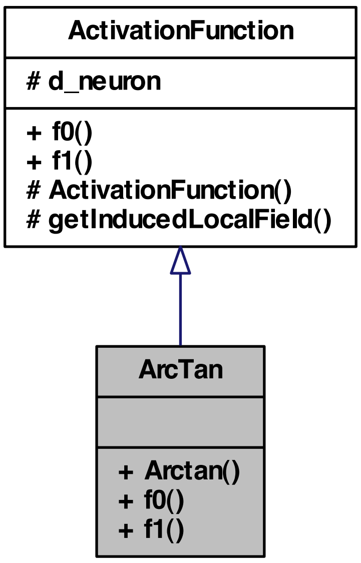
class ArcTan -

`#include <ArcTan.h>`

Inheritance diagram for ArcTan:



Collaboration diagram for ArcTan:



Public Member Functions

- Arctan (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.8.1 Detailed Description

class ArcTan -

Definition at line 5 of file ArcTan.h.

5.8.2 Member Function Documentation

5.8.2.1 ArcTan::Arctan (NeuronPtr *neuronPtr*)

5.8.2.2 double ArcTan::f0 ( ) [virtual]

Implements ActivationFunction.

5.8.2.3 double ArcTan::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

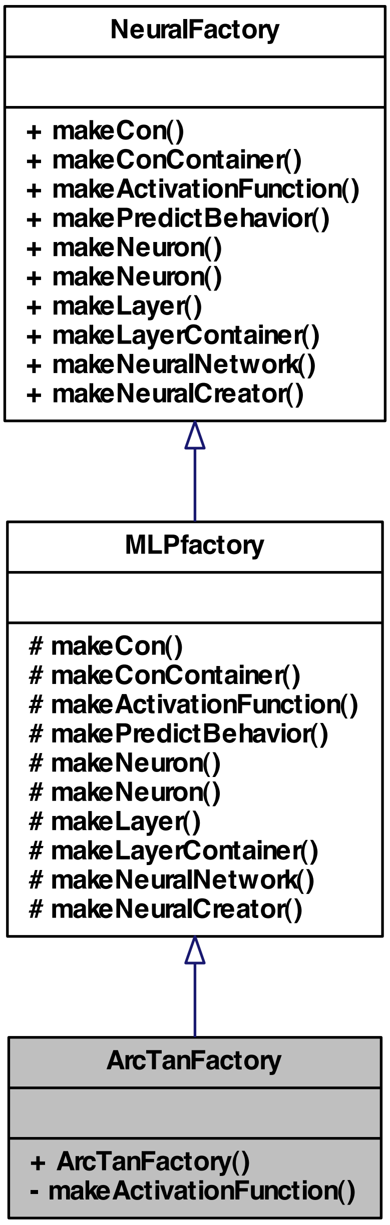
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.9 ArcTanFactory Class Reference

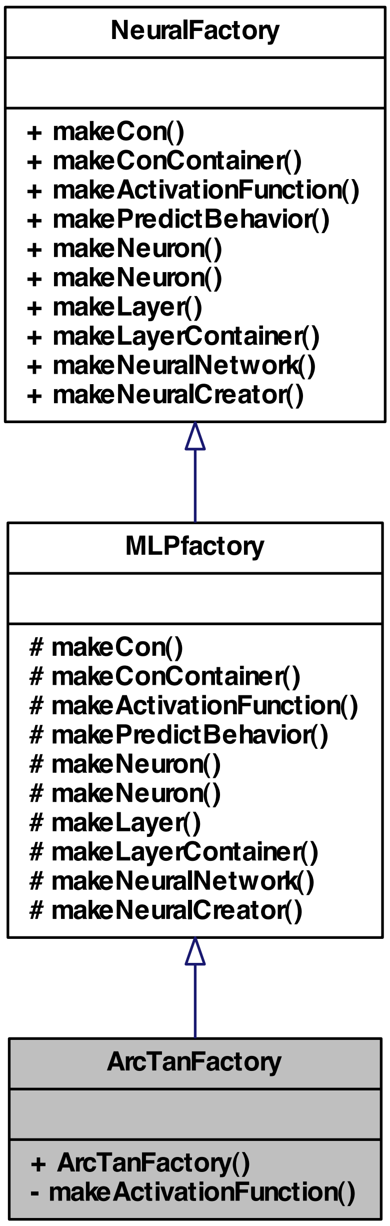
class ArcTanFactory -

```
#include <ArcTanFactory.h>
```

Inheritance diagram for ArcTanFactory:



Collaboration diagram for ArcTanFactory:



Public Member Functions

- ArcTanFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.9.1 Detailed Description

class ArcTanFactory -

Definition at line 5 of file ArcTanFactory.h.

5.9.2 Constructor & Destructor Documentation

5.9.2.1 ArcTanFactory::ArcTanFactory ( )

5.9.3 Member Function Documentation

5.9.3.1 ActivationFunctionPtr ArcTanFactory::makeActivationFunction (NeuronPtr *neuronPtr*) `[private, virtual]`

Implements MLPfactory.

The documentation for this class was generated from the following file:

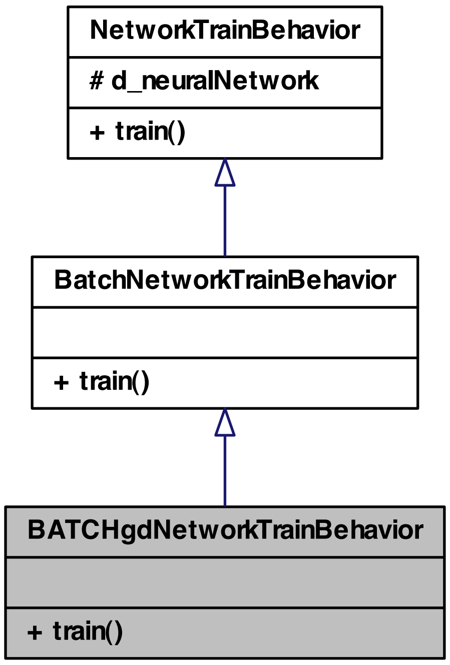
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ArcTanFa

5.10 BATCHgdNetworkTrainBehavior Class Reference

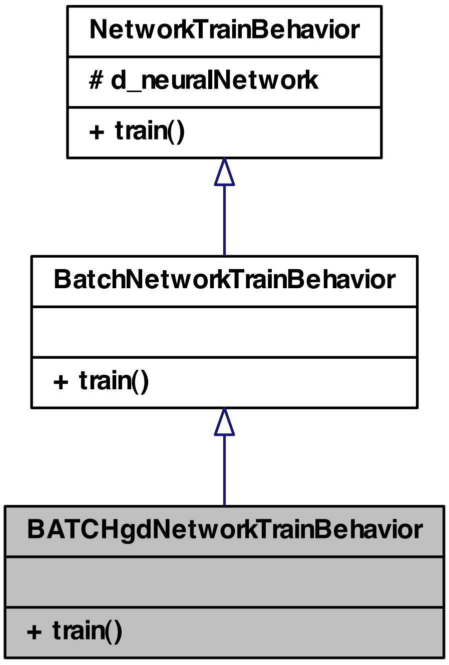
class BATCHgdNetworkTrainBehavior -

`#include <BATCHgdNetworkTrainBehavior.h>`

Inheritance diagram for BATCHgdNetworkTrainBehavior:



Collaboration diagram for BATCHgdNetworkTrainBehavior:



Public Member Functions

- Rcpp::List train (Rcpp::List parameterList)

5.10.1 Detailed Description

class BATCHgdNetworkTrainBehavior -

Definition at line 5 of file BATCHgdNetworkTrainBehavior.h.

5.10.2 Member Function Documentation

5.10.2.1 Rcpp::List BATCHgdNetworkTrainBehavior::train (Rcpp::List *parameterList*) `[virtual]`

Implements BatchNetworkTrainBehavior.

The documentation for this class was generated from the following file:

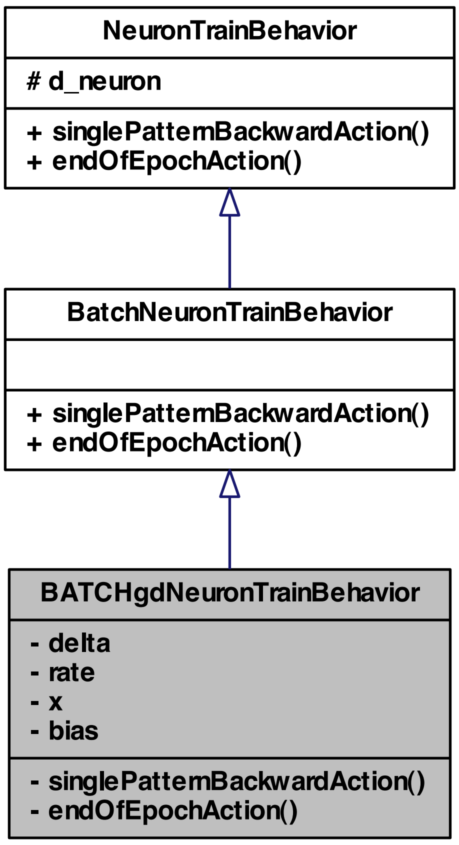
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.11 BATCHgdNeuronTrainBehavior Class Reference

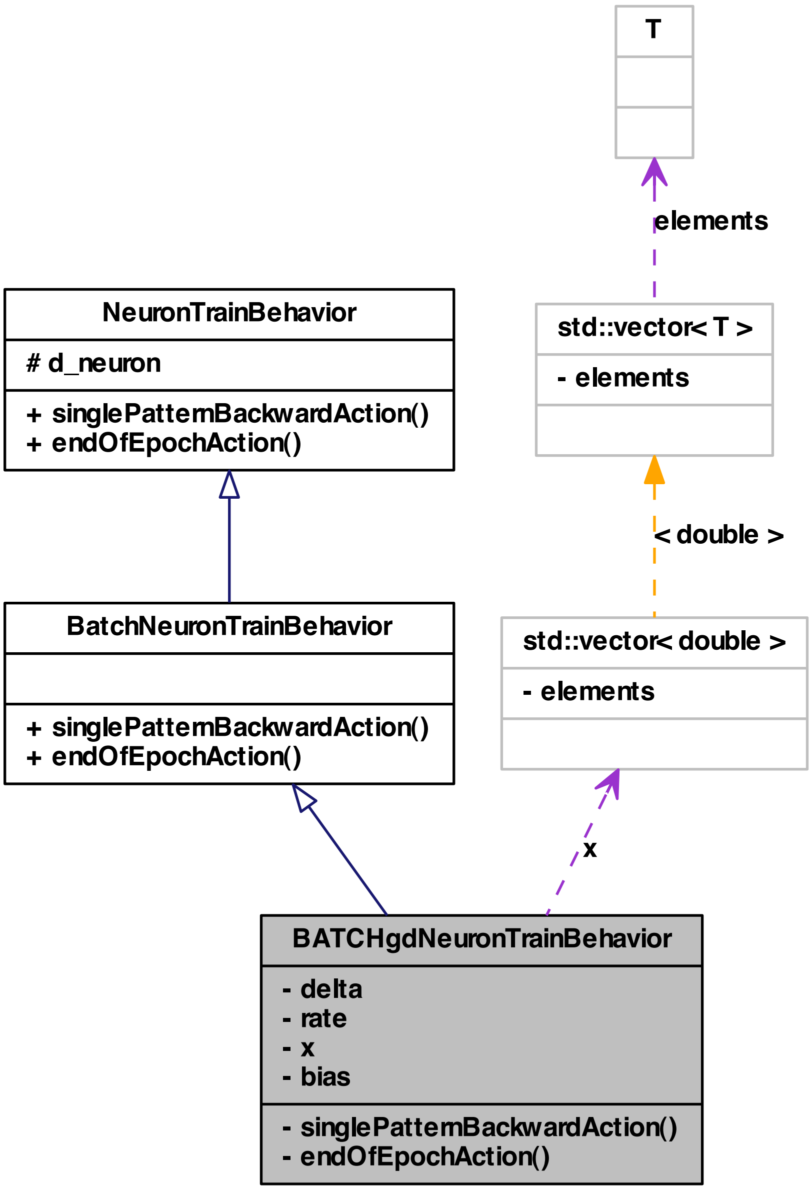
class BATCHgdNeuronTrainBehavior -

`#include <BATCHgdNeuronTrainBehavior.h>`

Inheritance diagram for BATCHgdNeuronTrainBehavior:



Collaboration diagram for BATCHgdNeuronTrainBehavior:



Private Member Functions

- void singlePatternBackwardAction ()
- void endOfEpochAction ()

Private Attributes

- double delta
- double learning rate
- std::vector$<$ double $>$ sum delta x
- double sum delta bias

5.11.1 Detailed Description

class BATCHgdNeuronTrainBehavior -

Definition at line 5 of file BATCHgdNeuronTrainBehavior.h.

5.11.2 Member Function Documentation

5.11.2.1 void BATCHgdNeuronTrainBehavior::endOfEpochAction ( ) [private, virtual]

Implements BatchNeuronTrainBehavior.

5.11.2.2 void BATCHgdNeuronTrainBehavior::singlePatternBackwardAction ( ) [private, virtual]

Implements BatchNeuronTrainBehavior.

5.11.3 Member Data Documentation

5.11.3.1 double sum delta BATCHgdNeuronTrainBehavior::bias [private]

Definition at line 11 of file BATCHgdNeuronTrainBehavior.h.

5.11.3.2 double BATCHgdNeuronTrainBehavior::delta [private]

Definition at line 8 of file BATCHgdNeuronTrainBehavior.h.

5.11.3.3 double learning BATCHgdNeuronTrainBehavior::rate [private]

Definition at line 9 of file BATCHgdNeuronTrainBehavior.h.

5.11.3.4 std::vector<double> sum delta BATCHgdNeuronTrainBehavior::x [private]

Definition at line 10 of file BATCHgdNeuronTrainBehavior.h.

The documentation for this class was generated from the following file:

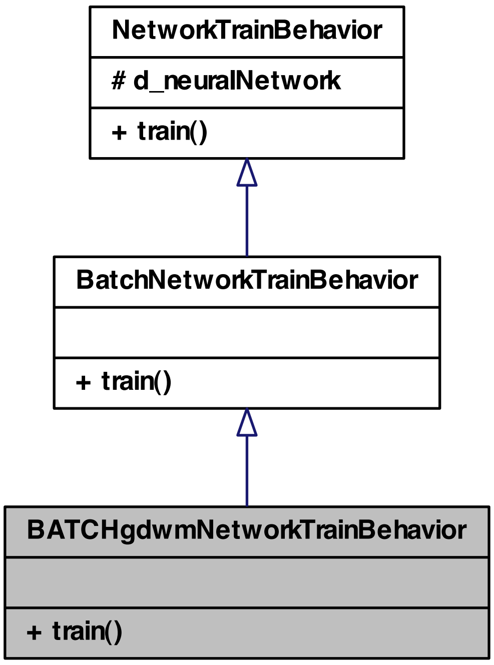
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgd

5.12 BATCHgdwmNetworkTrainBehavior Class Reference

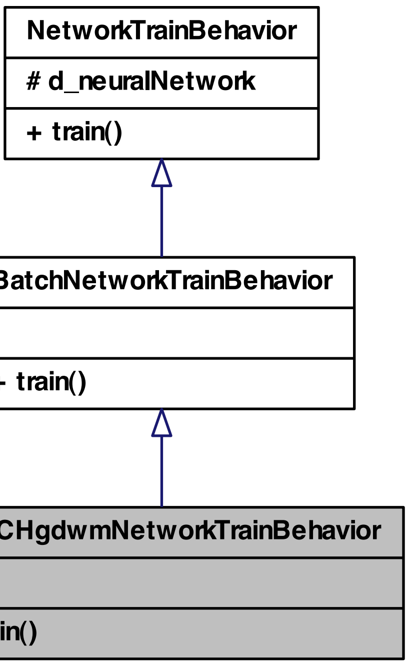
class BATCHgdwmNetworkTrainBehavior -

`#include <BATCHgdwmNetworkTrainBehavior.h>`

Inheritance diagram for BATCHgdwmNetworkTrainBehavior:



Collaboration diagram for BATCHgdwmNetworkTrainBehavior:



Public Member Functions

- Rcpp::List train (Rcpp::List parameterList)

5.12.1 Detailed Description

class BATCHgdwmNetworkTrainBehavior -

Definition at line 5 of file BATCHgdwmNetworkTrainBehavior.h.

5.12.2 Member Function Documentation

5.12.2.1 Rcpp::List BATCHgdwmNetworkTrainBehavior::train (Rcpp::List *parameterList*) `[virtual]`

Implements BatchNetworkTrainBehavior.

The documentation for this class was generated from the following file:

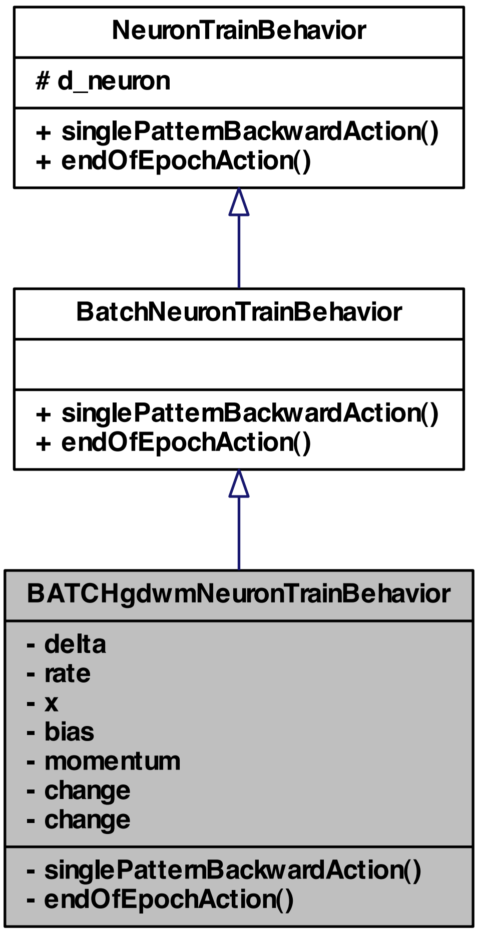
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgd

5.13 BATCHgdwmNeuronTrainBehavior Class Reference

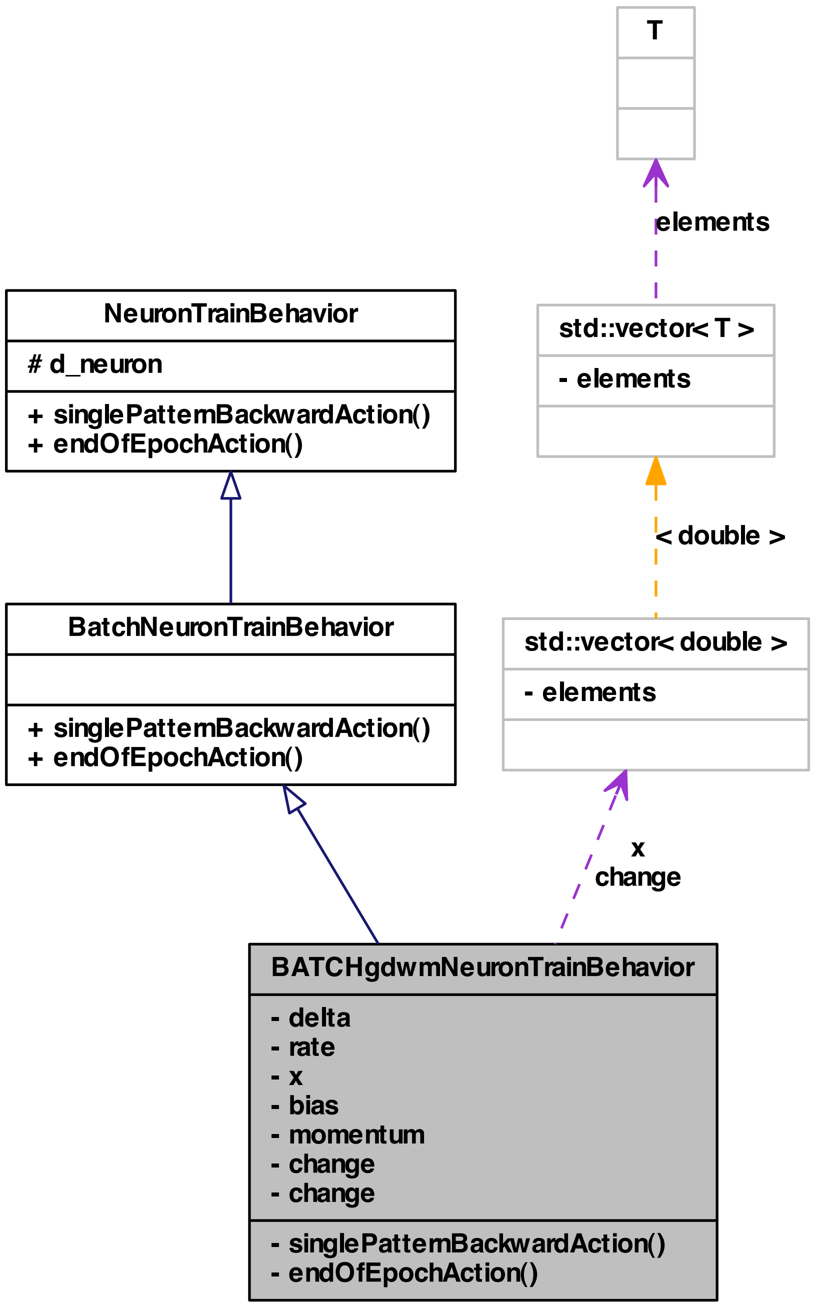
class BATCHgdwmNeuronTrainBehavior -

`#include <BATCHgdwmNeuronTrainBehavior.h>`

Inheritance diagram for BATCHgdwmNeuronTrainBehavior:



Collaboration diagram for BATCHgdwmNeuronTrainBehavior:



Private Member Functions

- void singlePatternBackwardAction ()
- void endOfEpochAction ()

Private Attributes

- double delta
- double learning rate
- std::vector< double > sum delta x
- double sum delta bias
- double momentum
- std::vector< double > former weight change
- double former bias change

5.13.1 Detailed Description

class BATCHgdwmNeuronTrainBehavior -

Definition at line 5 of file BATCHgdwmNeuronTrainBehavior.h.

5.13.2 Member Function Documentation

5.13.2.1 void BATCHgdwmNeuronTrainBehavior::endOfEpochAction ( ) `[private, virtual]`

Implements BatchNeuronTrainBehavior.

5.13.2.2 void BATCHgdwmNeuronTrainBehavior::singlePatternBackwardAction ( ) `[private, virtual]`

Implements BatchNeuronTrainBehavior.

5.13.3 Member Data Documentation

5.13.3.1 double sum delta BATCHgdwmNeuronTrainBehavior::bias `[private]`

Definition at line 11 of file BATCHgdwmNeuronTrainBehavior.h.

5.13.3.2 double former bias BATCHgdwmNeuronTrainBehavior::change `[private]`

Definition at line 14 of file BATCHgdwmNeuronTrainBehavior.h.

5.13.3.3 std::vector<double> former weight BATCHgdwmNeuronTrainBehavior::change [private]

Definition at line 13 of file BATCHgdwmNeuronTrainBehavior.h.

5.13.3.4 double BATCHgdwmNeuronTrainBehavior::delta [private]

Definition at line 8 of file BATCHgdwmNeuronTrainBehavior.h.

5.13.3.5 double BATCHgdwmNeuronTrainBehavior::momentum [private]

Definition at line 12 of file BATCHgdwmNeuronTrainBehavior.h.

5.13.3.6 double learning BATCHgdwmNeuronTrainBehavior::rate [private]

Definition at line 9 of file BATCHgdwmNeuronTrainBehavior.h.

5.13.3.7 std::vector<double> sum delta BATCHgdwmNeuronTrainBehavior::x [private]

Definition at line 10 of file BATCHgdwmNeuronTrainBehavior.h.

The documentation for this class was generated from the following file:

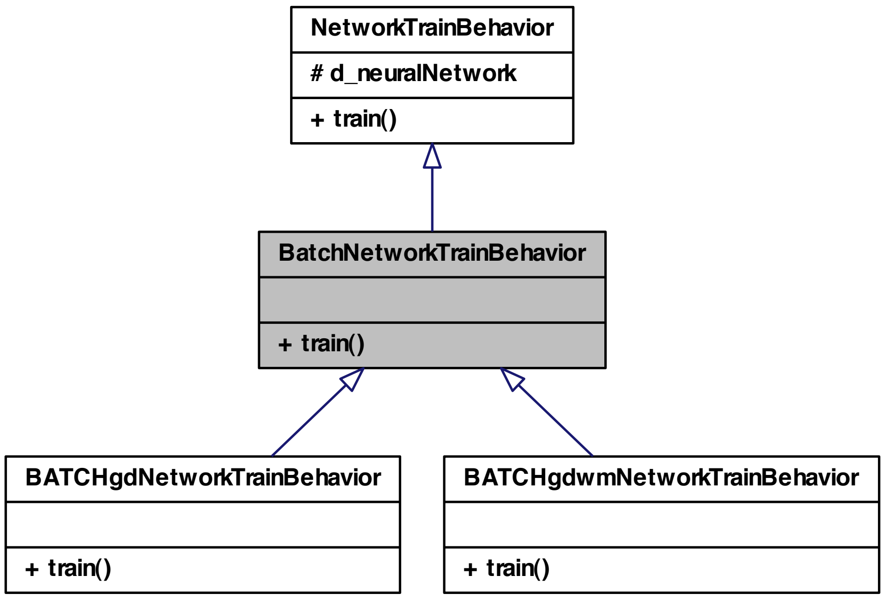
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.14 BatchNetworkTrainBehavior Class Reference

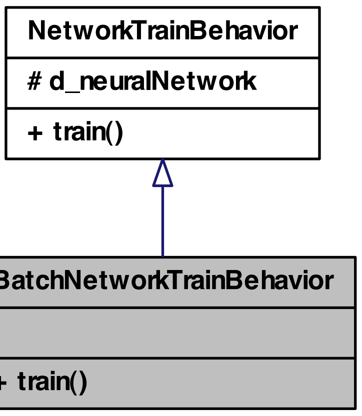
class BatchNetworkTrainBehavior -

`#include <BatchNetworkTrainBehavior.h>`

Inheritance diagram for BatchNetworkTrainBehavior:


NetworkTrainBehavior
# d_neuralNetwork
+ train()
BatchNetworkTrainBehavior
+ train()
BATCHgdNetworkTrainBehavior
+ train()
BATCHgdwmNetworkTrainBehavior
+ train()

Collaboration diagram for BatchNetworkTrainBehavior:



Public Member Functions

- virtual Rcpp::List train (Rcpp::List parameterList)=0

5.14.1 Detailed Description

class BatchNetworkTrainBehavior -

Definition at line 5 of file BatchNetworkTrainBehavior.h.

5.14.2 Member Function Documentation

5.14.2.1 virtual Rcpp::List BatchNetworkTrainBehavior::train (Rcpp::List *parameterList*) `[pure virtual]`

Implements NetworkTrainBehavior.

Implemented in BATCHgdNetworkTrainBehavior, and BATCHgdwmNetworkTrainBehavior.

The documentation for this class was generated from the following file:

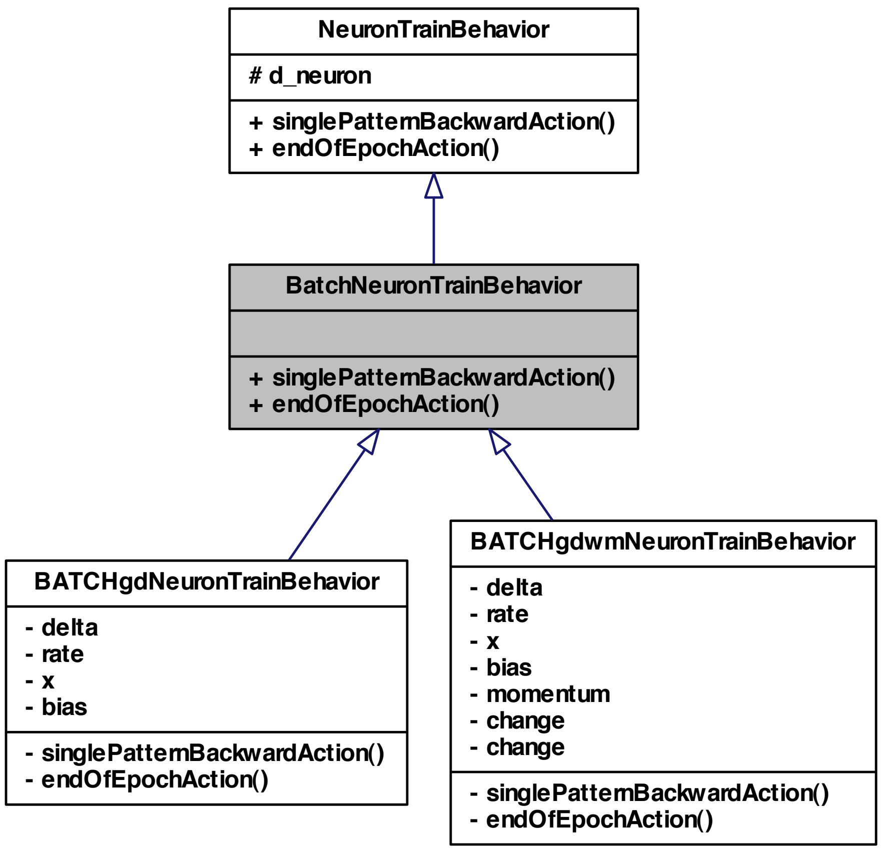
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.15 BatchNeuronTrainBehavior Class Reference

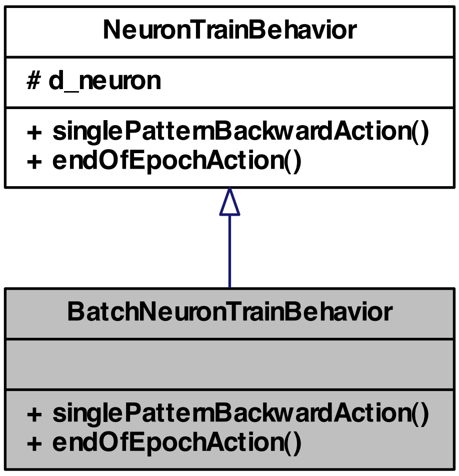
class BatchNeuronTrainBehavior -

`#include <BatchNeuronTrainBehavior.h>`

Inheritance diagram for BatchNeuronTrainBehavior:



Collaboration diagram for BatchNeuronTrainBehavior:



Public Member Functions

- virtual void singlePatternBackwardAction ()=0
- virtual void endOfEpochAction ()=0

5.15.1 Detailed Description

class BatchNeuronTrainBehavior -

Definition at line 5 of file BatchNeuronTrainBehavior.h.

5.15.2 Member Function Documentation

5.15.2.1 virtual void BatchNeuronTrainBehavior::endOfEpochAction ( ) [pure virtual]

Implements NeuronTrainBehavior.

Implemented in BATCHgdNeuronTrainBehavior, and BATCHgdwmNeuronTrainBehavior.

5.15.2.2 virtual void BatchNeuronTrainBehavior::singlePatternBackwardAction ( ) [pure virtual]

Implements NeuronTrainBehavior.

Implemented in BATCHgdNeuronTrainBehavior, and BATCHgdwmNeuronTrainBehavior.

The documentation for this class was generated from the following file:

- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BatchNeu

5.16 Con Class Reference

class Con -

`#include <Connection.h>`

Public Member Functions

- Con (Neuron &neuron)

  Constructor.
- Con (Neuron &neuron, double weight)

  Constructor.
- Handler Id ()

  A getter of the Id of the Neuron pointed by the from field.
- Neuron & getNeuron ()

  from field accessor.
- void setNeuron (Neuron &neuron)
- double getWeight ()

  weight field accessor.
- void setWeight (double weight)
- void show ()

  Pretty print of the Con information.
- bool validate ()

  Object validator.

Private Attributes

- NeuronRef d_neuron
- double d_weight

5.16.1 Detailed Description

class Con -

Definition at line 3 of file Connection.h.

5.16.2 Constructor & Destructor Documentation

5.16.2.1 Con::Con (Neuron & *neuron*)

Constructor.

Definition at line 20 of file Connection.cpp.

```
                        :
  d_neuron( boost::ref(neuron) ), d_weight(0)
{
}
```

5.16.2.2 Con::Con (Neuron & *neuron,* double *weight*)

Constructor.

Definition at line 31 of file Connection.cpp.

```
                                       :
  d_neuron(boost::ref(neuron)), d_weight(weight)
{
}
```

5.16.3 Member Function Documentation

5.16.3.1 Neuron & Con::getNeuron ( )

from field accessor.

This method allows access to the address stored in the private from field (a pointer to a Neuron object).∗

Returns

A pointer to the Neuron object referred to by the from field.

```
        //================
        //Usage example:
        //================
        // Data set up
                        NeuronPtr ptShNeuron ( new Neuron(1) );         // Neuron
       Id is set 1
                        ConPtr ptShCon( new Con(ptShNeuron) );          // from p
      oints to ptShNeuron and weight is set to 0
        // Test
                        ptShNeuron = ptShCon->getFrom() ;
                        int result = ptShNeuron->getId();

        // Now, result is equal to 1.
```

See also

getId and the unit test files, e.g., runit.Cpp.Con.R, for further examples.

Definition at line 57 of file Connection.cpp.

References d_neuron.

```
{
  return d_neuron;
}
```

5.16.3.2 double Con::getWeight ( )

weight field accessor.

This method allows access to the value stored in the private field weight

Returns

The value of weight (double)

```
  //================
  //Usage example:
  //================
  // Data set up
                      std::vector<double> result;
                      NeuronPtr ptShNeuron ( new Neuron(16) );                /
      / Neuron Id is set to 16
                      ConPtr ptShCon( new Con(ptShNeuron, 12.4) );  // from poi
      nts to ptShNeuron and weight is set to 12.4
        // Test
                      result.push_back( ptShCon->getWeight() );
                      ptShCon->setWeight(2.2);
                      result.push_back( ptShCon->getWeight() );

        // Now, result is a numeric vector that contains the values 12.4 and 2.2
      .
```

See also

setWeight and the unit test files, e.g., runit.Cpp.Con.R, for further examples.

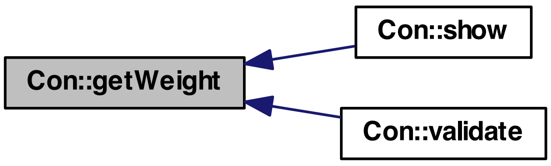
Definition at line 117 of file Connection.cpp.

References d_weight.

Referenced by show(), and validate().

```
{
  return d_weight;
}
```

Here is the caller graph for this function:



5.16.3.3 int Con::Id ( )

A getter of the Id of the Neuron pointed by the from field.

This method gets the Id of the Neuron referred to by the from field

Returns

The value of the Id (an integer).

```
//================
//Usage example:
//================
// Data set up
                NeuronPtr ptShNeuron ( new Neuron(16) );        // Neuron I
d is set to 16
                ConPtr ptShCon( new Con(ptShNeuron) );          // from poi
nts to ptShNeuron and weight is set to 0
// Test
                int result = ptShCon->getId();

// Now, result is equal to 16.
```

See also

getFrom, setFrom and the unit test files, e.g., runit.Cpp.Con.R, for further examples.

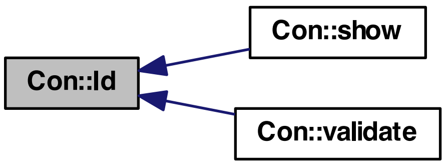
Definition at line 89 of file Connection.cpp.

References d_neuron.

Referenced by show(), and validate().

```
{
  return d_neuron.get().getId();
}
```

Here is the caller graph for this function:



5.16.3.4 void Con::setNeuron (Neuron & *neuron*)

Definition at line 64 of file Connection.cpp.

References d_neuron.

```
{
  d_neuron=boost::ref(neuron);
}
```

5.16.3.5 void Con::setWeight (double *weight*)

Definition at line 124 of file Connection.cpp.

References d_weight.

```
{
  d_weight=weight;
}
```

5.16.3.6 void Con::show ( )

Pretty print of the Con information.

This method outputs in the R terminal the contents of the Con fields.

Returns

true in case everything works without throwing an exception

See also

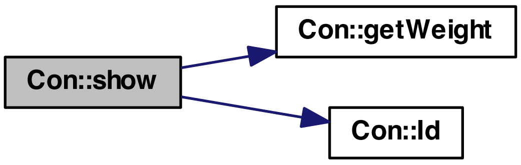
setWeight and the unit test files, e.g., runit.Cpp.Con.R, for usage examples.

Definition at line 136 of file Connection.cpp.

References getWeight(), and Id().

```
{
  int id = Id();
  if (id == NA_INTEGER)
    {
      Rprintf("\nFrom: NA\t Invalid Connection");
    }
  else
    {
      Rprintf("\nFrom:\t %d \t Weight= \t %lf", id , getWeight() );
    }
}
```

Here is the call graph for this function:



5.16.3.7 bool Con::validate ( )

Object validator.

This method checks the object for internal coherence. A try / catch mechanism exits normal execution and returns control to the R terminal in case the contents of the Con object are identified as corrupted.

Returns

true in case the checks are Ok.

Exceptions

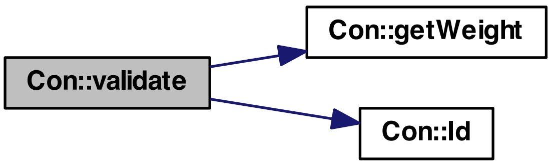
An	std::range error if weight or from are not finite.

Definition at line 156 of file Connection.cpp.

References getWeight(), and Id().

```
{
  BEGIN_RCPP
  if (! R_FINITE(getWeight()) ) throw std::range_error("weight is not finite.");
  if (Id() == NA_INTEGER)
    throw std::range_error("fromId is not finite.");
  return (true);
END_RCPP}
```

Here is the call graph for this function:



5.16.4 Member Data Documentation

5.16.4.1 NeuronRef Con::d_neuron [private]

Definition at line 6 of file Connection.h.

Referenced by getNeuron(), Id(), and setNeuron().

5.16.4.2 double Con::d_weight [private]

Definition at line 7 of file Connection.h.

Referenced by getWeight(), and setWeight().

The documentation for this class was generated from the following files:

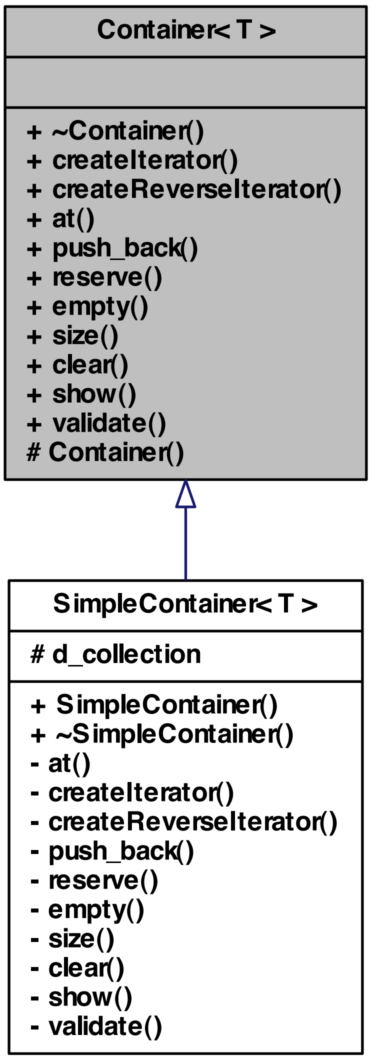
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Connectic
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Connection.cpp

5.17 Container< T > Class Template Reference

class Container -

`#include <Container.h>`

Inheritance diagram for Container< T >:



Public Member Functions

- virtual ~Container ()
- virtual boost::shared_ptr< Iterator< T > > createIterator ()=0
- virtual boost::shared_ptr< Iterator< T > > createReverseIterator ()=0

- virtual T at (size_type element)=0
- virtual void push_back (T const &const_reference)=0
- virtual void reserve (int n)=0
- virtual bool empty ()=0
- virtual size_type size ()=0
- virtual void clear ()=0
- virtual void show ()=0
- virtual bool validate ()=0

Protected Member Functions

- Container ()

5.17.1 Detailed Description

template<typename T>class Container< T >

class Container -

Definition at line 5 of file Container.h.

5.17.2 Constructor & Destructor Documentation

5.17.2.1 template<typename T > virtual Container< T >::~Container ( ) `[virtual]`

5.17.2.2 template<typename T > Container< T >::Container ( ) `[protected]`

5.17.3 Member Function Documentation

5.17.3.1 template<typename T > virtual T Container< T >::at (size_type *element*) `[pure virtual]`

Implemented in SimpleContainer< T >.

5.17.3.2 template<typename T > virtual void Container< T >::clear ( ) `[pure virtual]`

Implemented in SimpleContainer< T >.

5.17.3.3 template<typename T > virtual boost::shared_ptr< Iterator<T> > Container< T >::createIterator ( ) `[pure virtual]`

Implemented in SimpleContainer< T >.

5.17.3.4 template<typename T > virtual boost::shared_ptr< Iterator<T> > Container< T >::createReverseIterator ( ) [pure virtual]

Implemented in SimpleContainer< T >.

5.17.3.5 template<typename T > virtual bool Container< T >::empty ( ) [pure virtual]

Implemented in SimpleContainer< T >.

5.17.3.6 template<typename T > virtual void Container< T >::push_back (T const & *const_reference*) [pure virtual]

Implemented in SimpleContainer< T >.

5.17.3.7 template<typename T > virtual void Container< T >::reserve (int *n*) [pure virtual]

Implemented in SimpleContainer< T >.

5.17.3.8 template<typename T > virtual void Container< T >::show ( ) [pure virtual]

Implemented in SimpleContainer< T >.

5.17.3.9 template<typename T > virtual size_type Container< T >::size ( ) [pure virtual]

Implemented in SimpleContainer< T >.

5.17.3.10 template<typename T > virtual bool Container< T >::validate ( ) [pure virtual]

Implemented in SimpleContainer< T >.

The documentation for this class was generated from the following file:

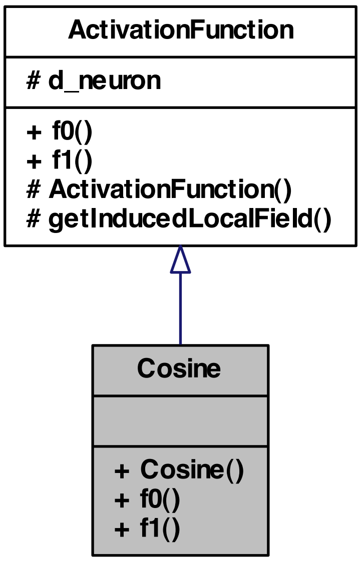
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.18 Cosine Class Reference

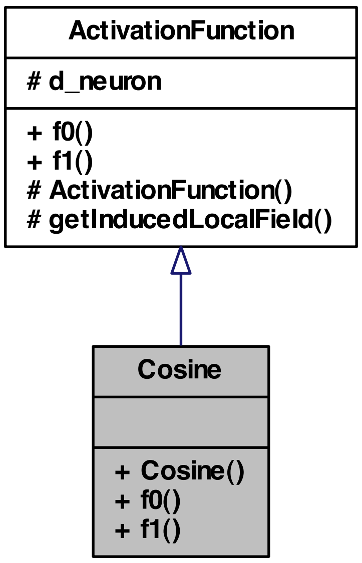
class Cosine -

`#include <Cosine.h>`

Inheritance diagram for Cosine:



Collaboration diagram for Cosine:



Public Member Functions

- Cosine (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.18.1 Detailed Description

class Cosine -

Definition at line 5 of file Cosine.h.

5.18.2 Constructor & Destructor Documentation

5.18.2.1 Cosine::Cosine (**NeuronPtr** *neuronPtr*)

5.18.3 Member Function Documentation

5.18.3.1 double Cosine::f0 ( ) [virtual]

Implements ActivationFunction.

5.18.3.2 double Cosine::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

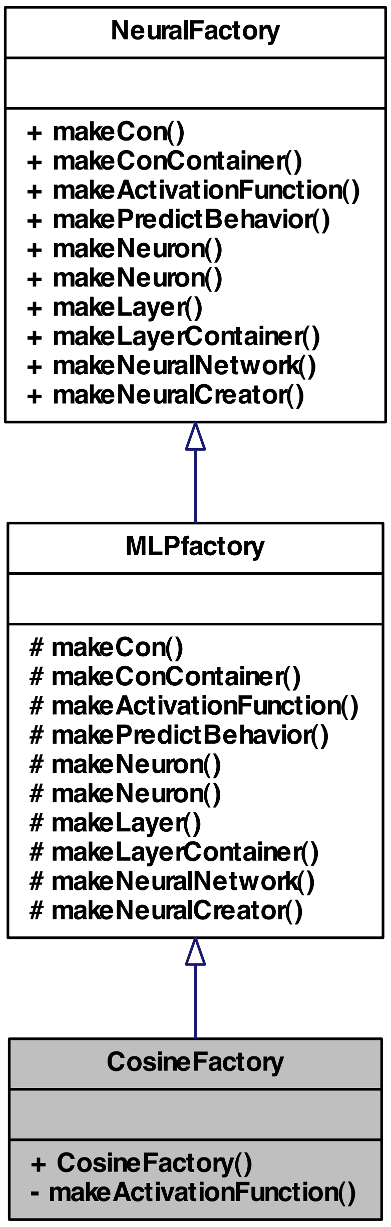
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Cosine.h

5.19 CosineFactory Class Reference

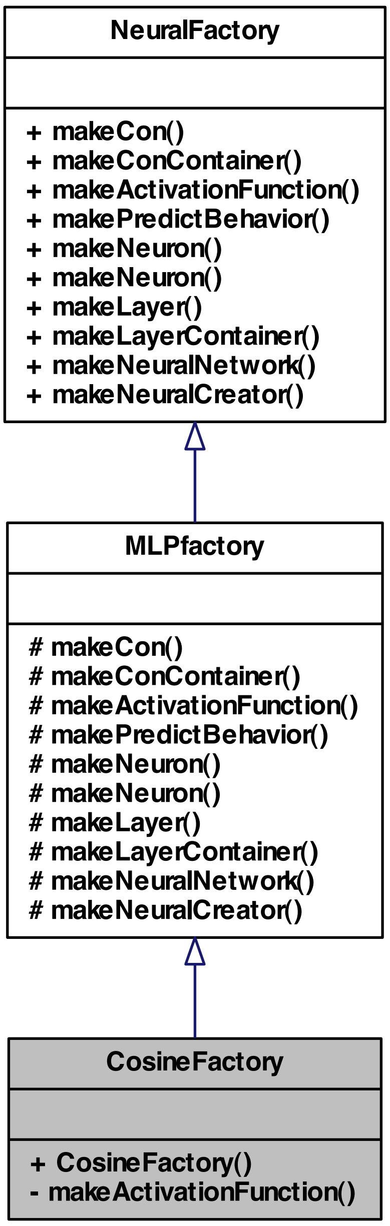
class CosineFactory -

`#include <CosineFactory.h>`

Inheritance diagram for CosineFactory:



Collaboration diagram for CosineFactory:



Public Member Functions

- CosineFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.19.1 Detailed Description

class CosineFactory -

Definition at line 5 of file CosineFactory.h.

5.19.2 Constructor & Destructor Documentation

5.19.2.1 CosineFactory::CosineFactory ( )

5.19.3 Member Function Documentation

5.19.3.1 ActivationFunctionPtr CosineFactory::makeActivationFunction (NeuronPtr *neuronPtr*) `[private, virtual]`

Implements MLPfactory.

The documentation for this class was generated from the following file:

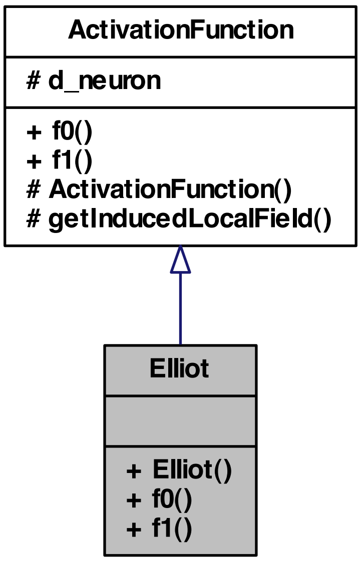
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.20 Elliot Class Reference

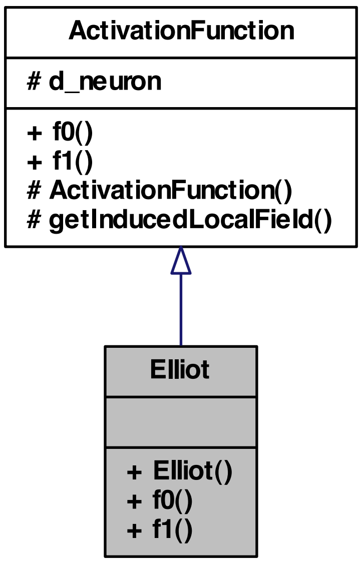
class Elliot -

`#include <Elliot.h>`

Inheritance diagram for Elliot:



Collaboration diagram for Elliot:



Public Member Functions

- Elliot (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.20.1 Detailed Description

class Elliot -

Definition at line 5 of file Elliot.h.

5.20.2 Constructor & Destructor Documentation

5.20.2.1 Elliot::Elliot (NeuronPtr *neuronPtr*)

5.20.3 Member Function Documentation

5.20.3.1 double Elliot::f0 ( ) [virtual]

Implements ActivationFunction.

5.20.3.2 double Elliot::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

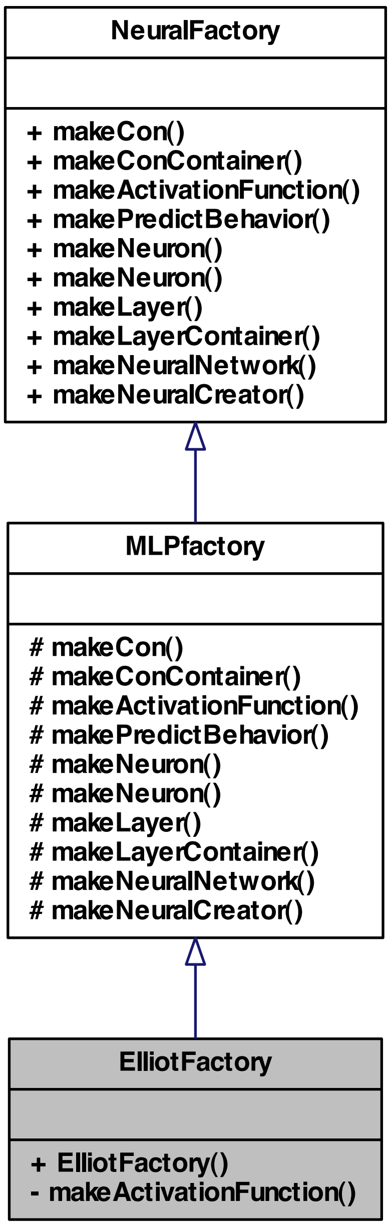
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Elliot.h

5.21 ElliotFactory Class Reference

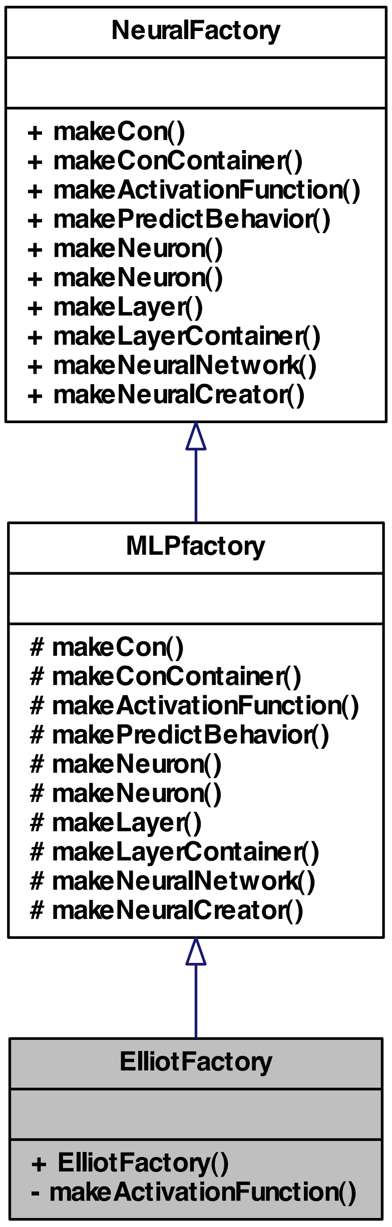
class ElliotFactory -

`#include <ElliotFactory.h>`

Inheritance diagram for ElliotFactory:



Collaboration diagram for ElliotFactory:



Public Member Functions

- ElliotFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.21.1 Detailed Description

class ElliotFactory -

Definition at line 5 of file ElliotFactory.h.

5.21.2 Constructor & Destructor Documentation

5.21.2.1 ElliotFactory::ElliotFactory ( )

5.21.3 Member Function Documentation

5.21.3.1 ActivationFunctionPtr ElliotFactory::makeActivationFunction (NeuronPtr *neuronPtr*) `[private, virtual]`

Implements MLPfactory.

The documentation for this class was generated from the following file:

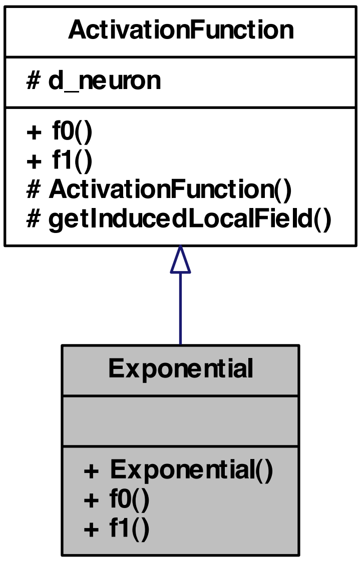
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.22 Exponential Class Reference

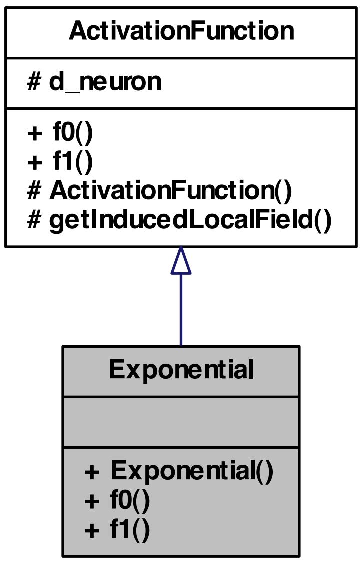
class Exponential -

`#include <Exponential.h>`

Inheritance diagram for Exponential:



Collaboration diagram for Exponential:



Public Member Functions

- Exponential (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.22.1 Detailed Description

class Exponential -

Definition at line 5 of file Exponential.h.

5.22.2 Constructor & Destructor Documentation

5.22.2.1 Exponential::Exponential (NeuronPtr *neuronPtr*)

5.22.3 Member Function Documentation

5.22.3.1 double Exponential::f0 ( ) [virtual]

Implements ActivationFunction.

5.22.3.2 double Exponential::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

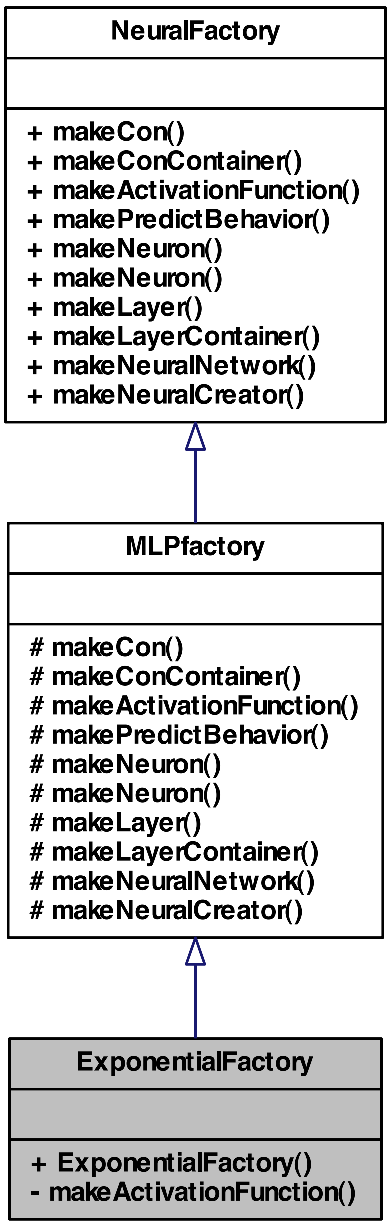
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Exponent

5.23 ExponentialFactory Class Reference

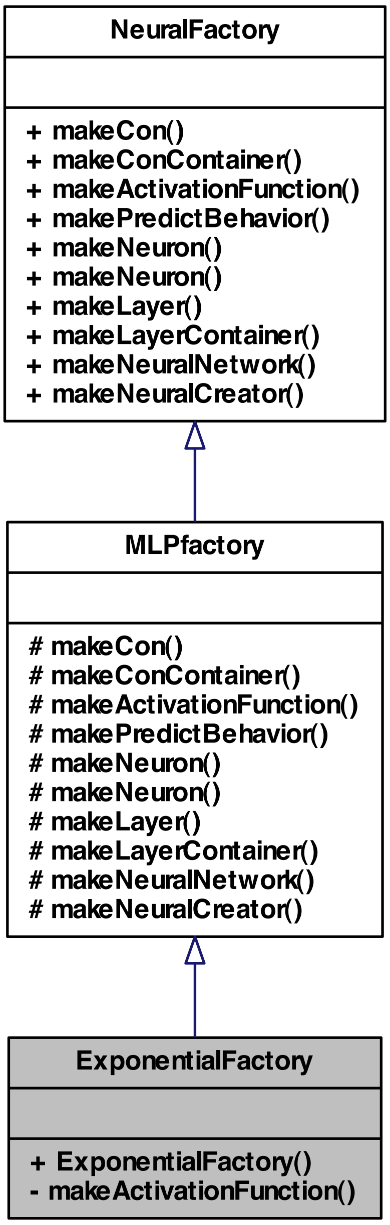
class ExponentialFactory -

`#include <ExponentialFactory.h>`

Inheritance diagram for ExponentialFactory:



Collaboration diagram for ExponentialFactory:



Public Member Functions

- ExponentialFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.23.1 Detailed Description

class ExponentialFactory -

Definition at line 5 of file ExponentialFactory.h.

5.23.2 Constructor & Destructor Documentation

5.23.2.1 ExponentialFactory::ExponentialFactory ( )

5.23.3 Member Function Documentation

5.23.3.1 ActivationFunctionPtr ExponentialFactory::makeActivationFunction (NeuronPtr *neuronPtr*) `[private, virtual]`

Implements MLPfactory.

The documentation for this class was generated from the following file:

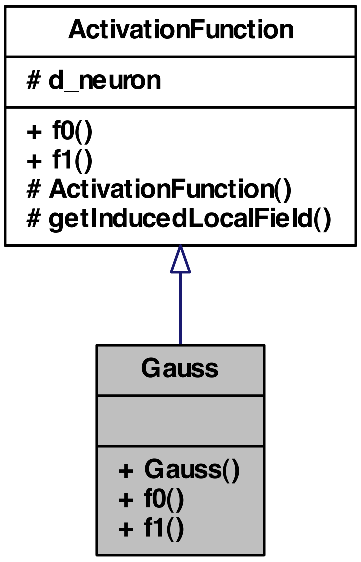
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.24 Gauss Class Reference

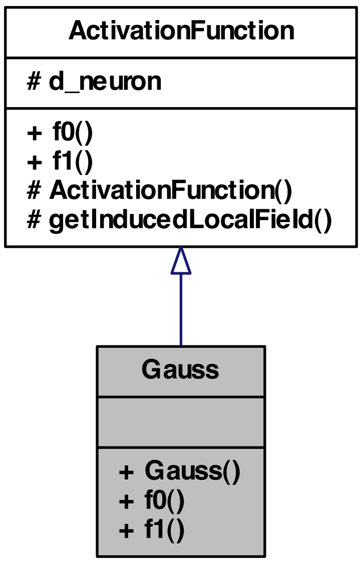
class Gauss -

`#include <Gauss.h>`

Inheritance diagram for Gauss:



Collaboration diagram for Gauss:



Public Member Functions

- Gauss (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.24.1 Detailed Description

class Gauss -

Definition at line 5 of file Gauss.h.

5.24.2 Constructor & Destructor Documentation

5.24.2.1 Gauss::Gauss (NeuronPtr *neuronPtr*)

5.24.3 Member Function Documentation

5.24.3.1 double Gauss::f0 ( ) [virtual]

Implements ActivationFunction.

5.24.3.2 double Gauss::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

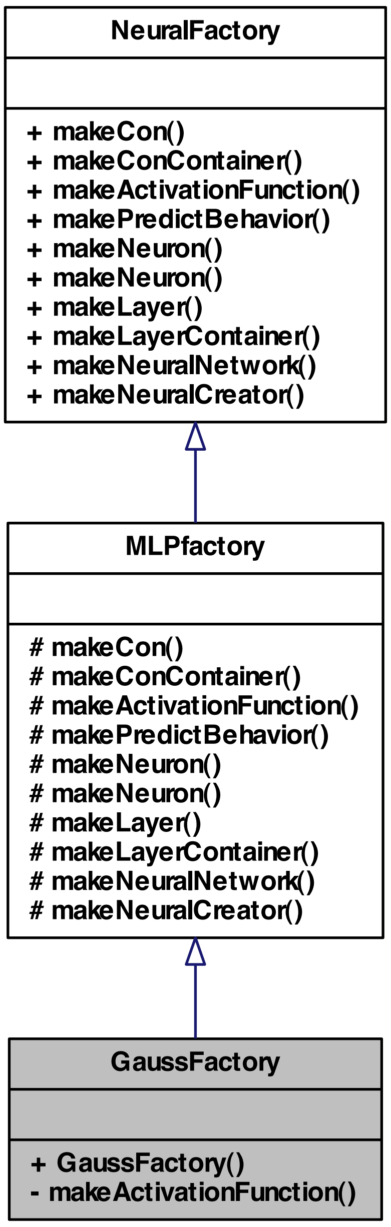
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Gauss.h

5.25 GaussFactory Class Reference

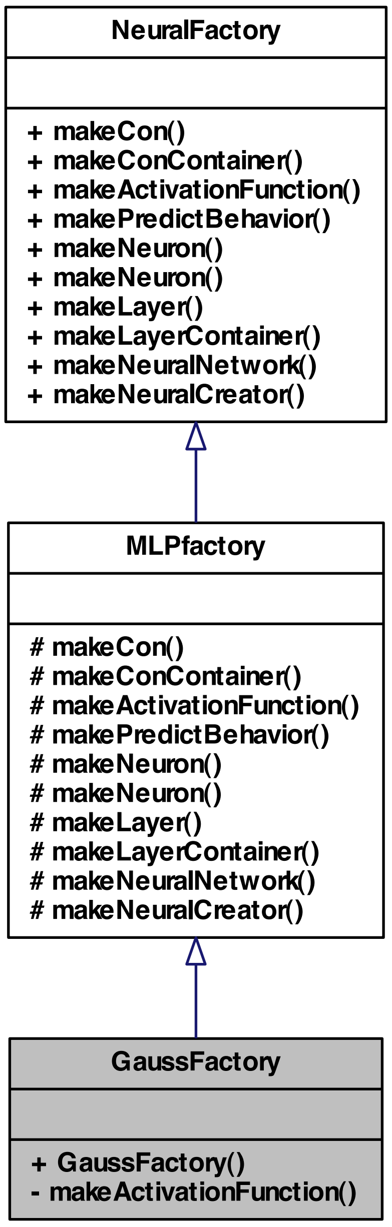
class GaussFactory -

`#include <GaussFactory.h>`

Inheritance diagram for GaussFactory:



Collaboration diagram for GaussFactory:



Public Member Functions

- GaussFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.25.1 Detailed Description

class GaussFactory -

Definition at line 5 of file GaussFactory.h.

5.25.2 Constructor & Destructor Documentation

5.25.2.1 GaussFactory::GaussFactory ( )

5.25.3 Member Function Documentation

5.25.3.1 ActivationFunctionPtr GaussFactory::makeActivationFunction (NeuronPtr *neuronPtr*) `[private, virtual]`

Implements MLPfactory.

The documentation for this class was generated from the following file:

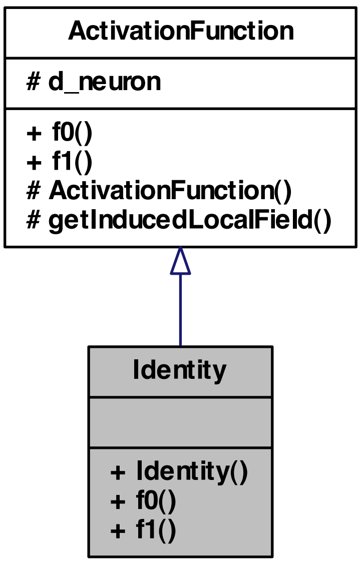
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.26 Identity Class Reference

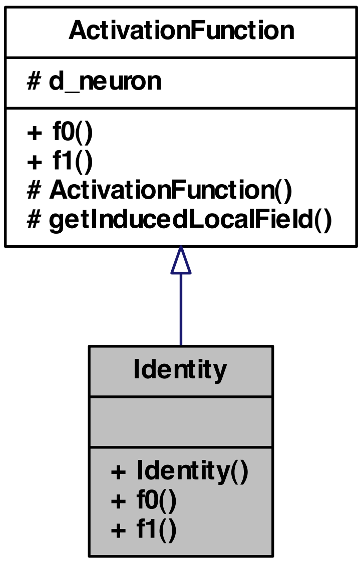
class Identity -

`#include <Identity.h>`

Inheritance diagram for Identity:



Collaboration diagram for Identity:



Public Member Functions

- Identity (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.26.1 Detailed Description

class Identity -

Definition at line 5 of file Identity.h.

5.26.2 Constructor & Destructor Documentation

5.26.2.1 Identity::Identity (**NeuronPtr** *neuronPtr*)

Definition at line 13 of file Identity.cpp.

```
                                       : ActivationFunction(neuronPtr) {
}
```

5.26.3 Member Function Documentation

5.26.3.1 double Identity::f0 ( ) [virtual]

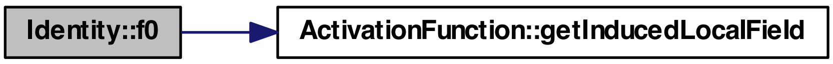
Implements ActivationFunction.

Definition at line 17 of file Identity.cpp.

References ActivationFunction::getInducedLocalField().

```
                      {
  return getInducedLocalField() ;
}
```

Here is the call graph for this function:



5.26.3.2 double Identity::f1 ( ) [virtual]

Implements ActivationFunction.

Definition at line 21 of file Identity.cpp.

```
                      {
  return 1 ;
}
```

The documentation for this class was generated from the following files:

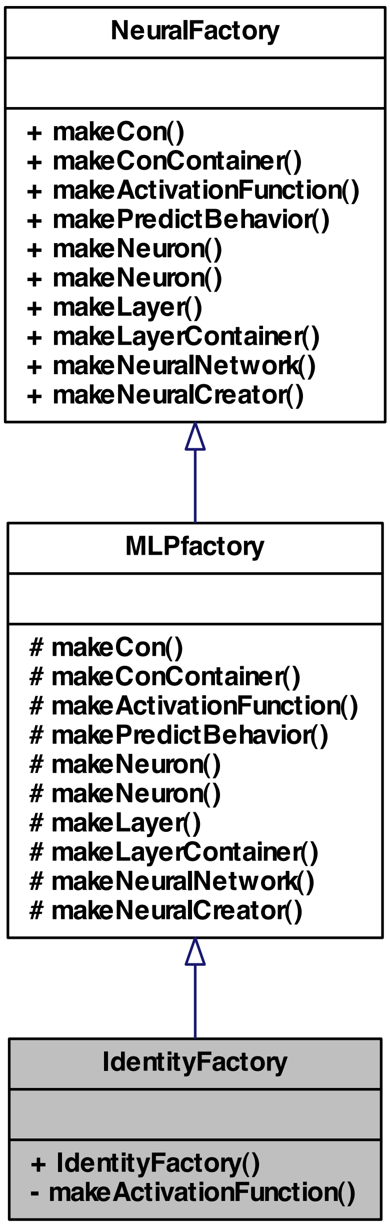
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Identity.h
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Identity.cpp

5.27 IdentityFactory Class Reference

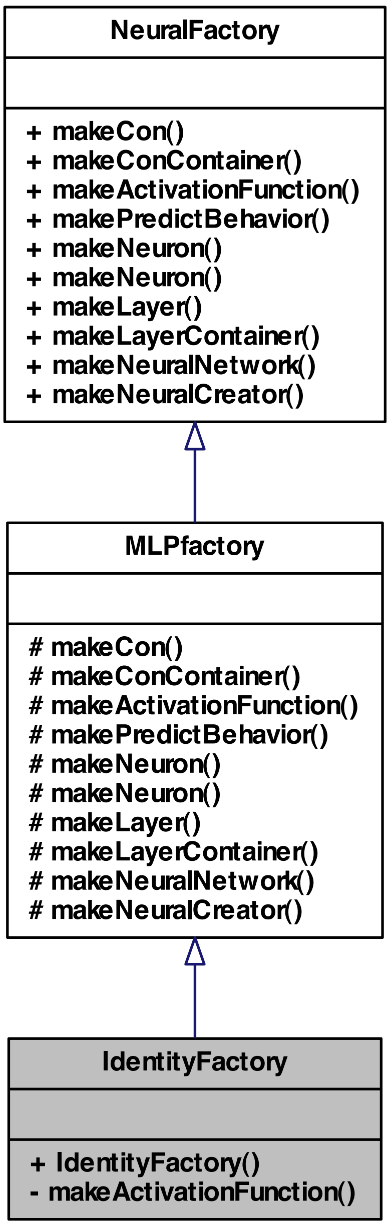
class IdentityFactory -

```
#include <IdentityFactory.h>
```

Inheritance diagram for IdentityFactory:



Collaboration diagram for IdentityFactory:



Public Member Functions

- IdentityFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.27.1 Detailed Description

class IdentityFactory -

Definition at line 5 of file IdentityFactory.h.

5.27.2 Constructor & Destructor Documentation

5.27.2.1 IdentityFactory::IdentityFactory ( )

Definition at line 14 of file IdentityFactory.cpp.

```
{
}
```

5.27.3 Member Function Documentation

5.27.3.1 ActivationFunctionPtr IdentityFactory::makeActivationFunction (NeuronPtr *neuronPtr*) [private, virtual]

Implements MLPfactory.

Definition at line 20 of file IdentityFactory.cpp.

```
  {
    ActivationFunctionPtr activationFunctionPtr(new Identity(neuronPtr));
    return activationFunctionPtr;
  }
```

The documentation for this class was generated from the following files:

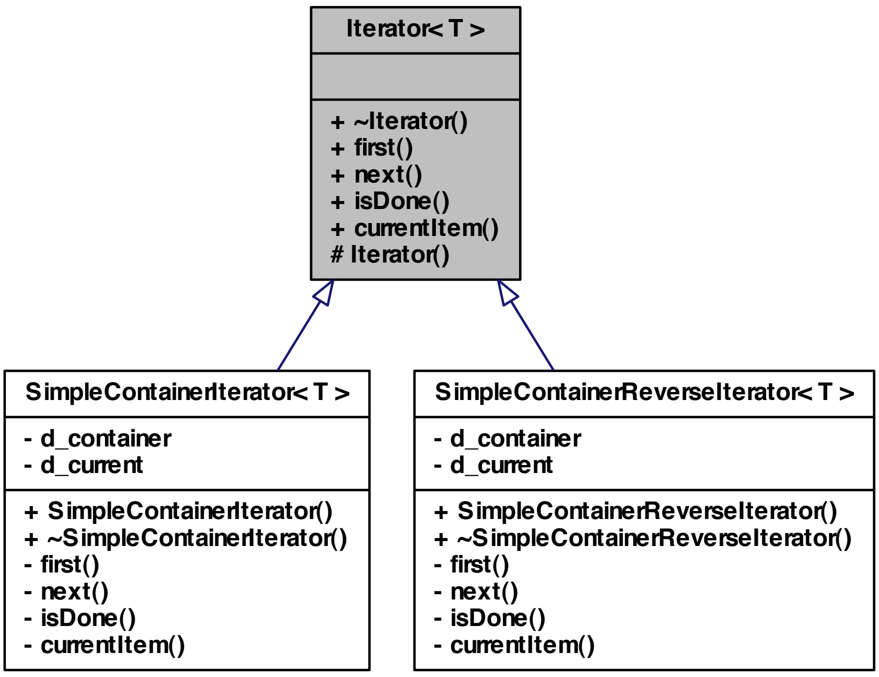
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/IdentityFac

5.28 Iterator< T > Class Template Reference

class Iterator -

```
#include <Iterator.h>
```

Inheritance diagram for Iterator< T >:



Public Member Functions

- virtual ~Iterator ()
- virtual void first ()=0
- virtual void next ()=0
- virtual bool isDone ()=0
- virtual T currentItem ()=0

Protected Member Functions

- Iterator ()

5.28.1 Detailed Description

template<typename T>class Iterator< T >

class Iterator -

Definition at line 5 of file Iterator.h.

5.28.2 Constructor & Destructor Documentation

5.28.2.1 template<typename T > virtual Iterator< T >::~Iterator ( ) `[virtual]`

5.28.2.2 template<typename T > Iterator< T >::Iterator ( ) `[protected]`

5.28.3 Member Function Documentation

5.28.3.1 template<typename T > virtual T Iterator< T >::currentItem ( ) `[pure virtual]`

Implemented in SimpleContainerIterator< T >, and SimpleContainerReverseIterator< T >.

5.28.3.2 template<typename T > virtual void Iterator< T >::first ( ) `[pure virtual]`

Implemented in SimpleContainerIterator< T >, and SimpleContainerReverseIterator< T >.

5.28.3.3 template<typename T > virtual bool Iterator< T >::isDone ( ) `[pure virtual]`

Implemented in SimpleContainerIterator< T >, and SimpleContainerReverseIterator< T >.

5.28.3.4 template<typename T > virtual void Iterator< T >::next ( ) `[pure virtual]`

Implemented in SimpleContainerIterator< T >, and SimpleContainerReverseIterator< T >.

The documentation for this class was generated from the following file:

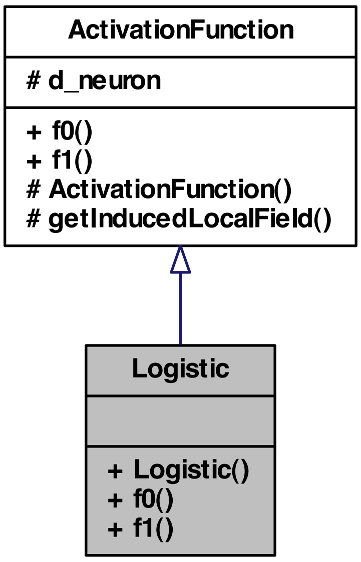
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.29 Logistic Class Reference

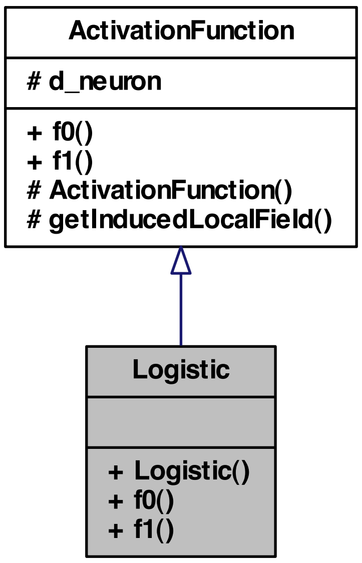
class Logistic -

```
#include <Logistic.h>
```

Inheritance diagram for Logistic:



Collaboration diagram for Logistic:



Public Member Functions

- Logistic (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.29.1 Detailed Description

class Logistic -

Definition at line 5 of file Logistic.h.

5.29.2 Constructor & Destructor Documentation

5.29.2.1 Logistic::Logistic (NeuronPtr *neuronPtr*)

5.29.3 Member Function Documentation

5.29.3.1 double Logistic::f0 ( ) [virtual]

Implements ActivationFunction.

5.29.3.2 double Logistic::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

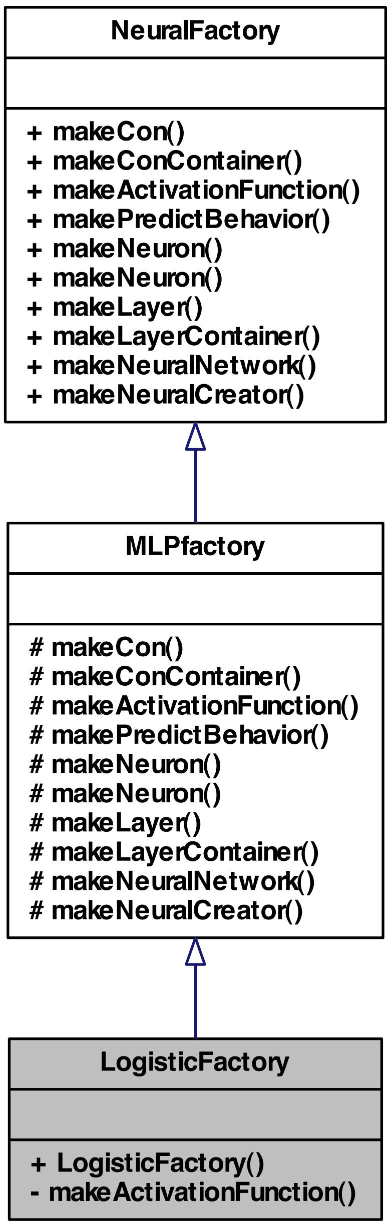
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Logistic.h

5.30 LogisticFactory Class Reference

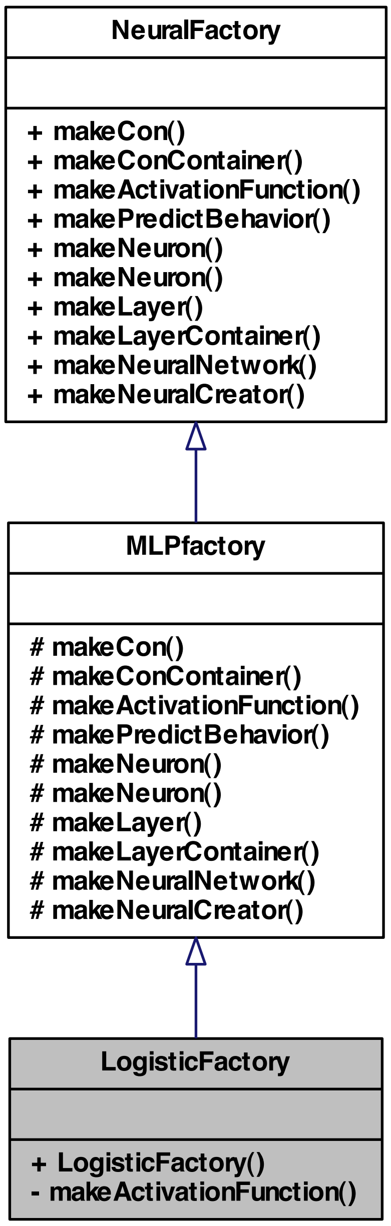
class LogisticFactory -

`#include <LogisticFactory.h>`

Inheritance diagram for LogisticFactory:



Collaboration diagram for LogisticFactory:



Public Member Functions

- LogisticFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.30.1 Detailed Description

class LogisticFactory -

Definition at line 5 of file LogisticFactory.h.

5.30.2 Constructor & Destructor Documentation

5.30.2.1 LogisticFactory::LogisticFactory ( )

5.30.3 Member Function Documentation

5.30.3.1 ActivationFunctionPtr LogisticFactory::makeActivationFunction (NeuronPtr *neuronPtr*) `[private, virtual]`

Implements MLPfactory.

The documentation for this class was generated from the following file:

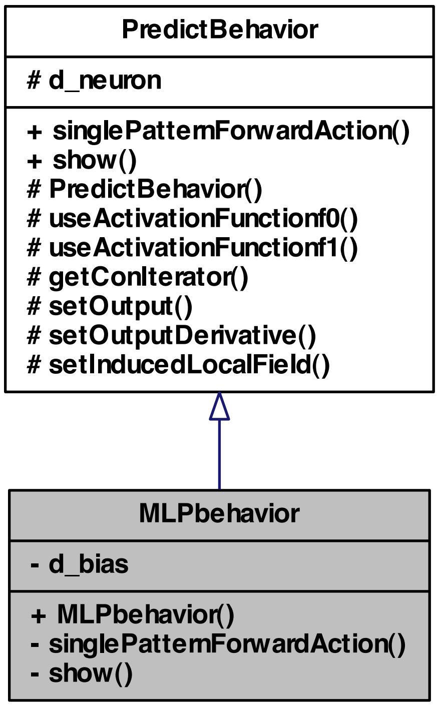
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.31 MLPbehavior Class Reference

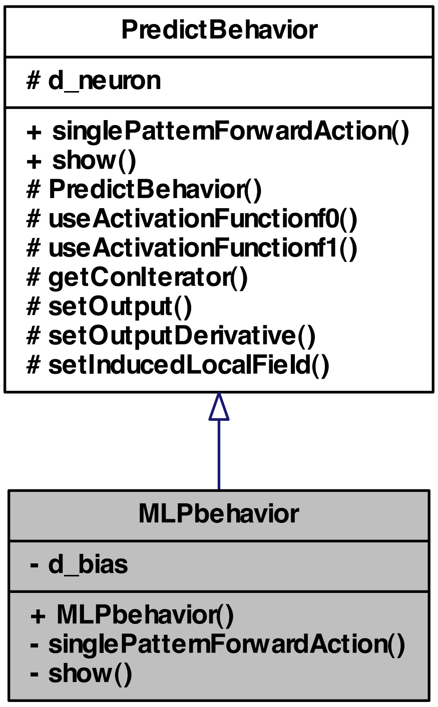
class MLPbehavior -

`#include <MLPbehavior.h>`

Inheritance diagram for MLPbehavior:



Collaboration diagram for MLPbehavior:



Public Member Functions

- MLPbehavior (NeuronPtr neuronPtr)

Private Member Functions

- void singlePatternForwardAction ()
- void show ()

Private Attributes

- double d_bias

Friends

- class MLPfactory

5.31.1 Detailed Description

class MLPbehavior -

Definition at line 5 of file MLPbehavior.h.

5.31.2 Constructor & Destructor Documentation

5.31.2.1 MLPbehavior::MLPbehavior (NeuronPtr *neuronPtr*)

Definition at line 17 of file MLPbehavior.cpp.

```
                                              :
   PredictBehavior(neuronPtr) , d_bias(0.0)
{
}
```

5.31.3 Member Function Documentation

5.31.3.1 void MLPbehavior::show ( ) [private, virtual]

Implements PredictBehavior.

Definition at line 42 of file MLPbehavior.cpp.

References d_bias.

```
{
  Rprintf("\n bias: %lf", d_bias);
}
```

5.31.3.2 void MLPbehavior::singlePatternForwardAction ( ) [private, virtual]

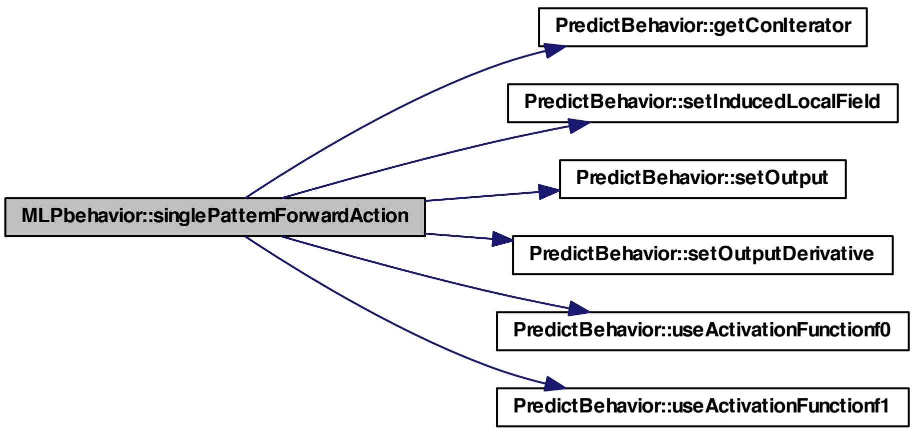
Implements PredictBehavior.

Definition at line 23 of file MLPbehavior.cpp.

References d_bias, PredictBehavior::getConIterator(), PredictBehavior::setInducedLocalField(), PredictBehavior::setOutput(), PredictBehavior::setOutputDerivative(), PredictBehavior::useActivationFunctionf0(), and PredictBehavior::useActivationFunctionf1().

```
{

  double accumulator(d_bias);
  ConIteratorPtr conIterator = getConIterator();
  double weight;
  double incomingSignalValue;
  for (conIterator->first(); !conIterator->isDone(); conIterator->next())
    {
      weight = conIterator->currentItem()->getWeight();
      incomingSignalValue = conIterator->currentItem()->getNeuron().getOutput();
      accumulator += weight * incomingSignalValue;
    }
  setInducedLocalField(accumulator);
  setOutput (useActivationFunctionf0());
  setOutputDerivative (useActivationFunctionf1());
}
```

Here is the call graph for this function:


PredictBehavior::getConIterator
PredictBehavior::setInducedLocalField
PredictBehavior::setOutput
MLPbehavior::singlePatternForwardAction
PredictBehavior::setOutputDerivative
PredictBehavior::useActivationFunctionf0
PredictBehavior::useActivationFunctionf1

5.31.4 Friends And Related Function Documentation

5.31.4.1 friend class **MLPfactory** [friend]

Definition at line 11 of file MLPbehavior.h.

5.31.5 Member Data Documentation

5.31.5.1 double **MLPbehavior::d_bias** [private]

Definition at line 8 of file MLPbehavior.h.

Referenced by MLPfactory::makeNeuron(), show(), and singlePatternForwardAction().

The documentation for this class was generated from the following files:

- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/MLPbeha

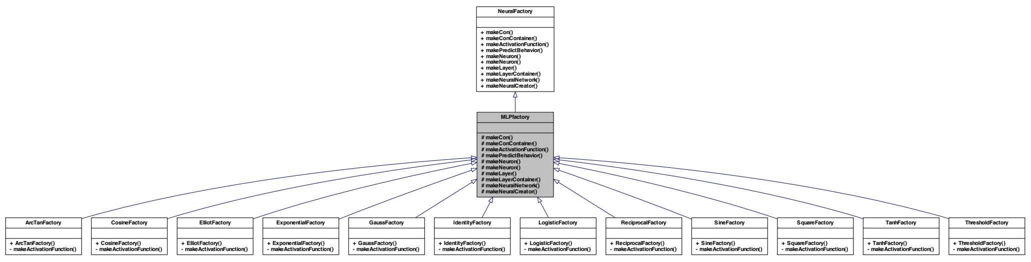
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPbehavior.cpp

5.32 MLPfactory Class Reference

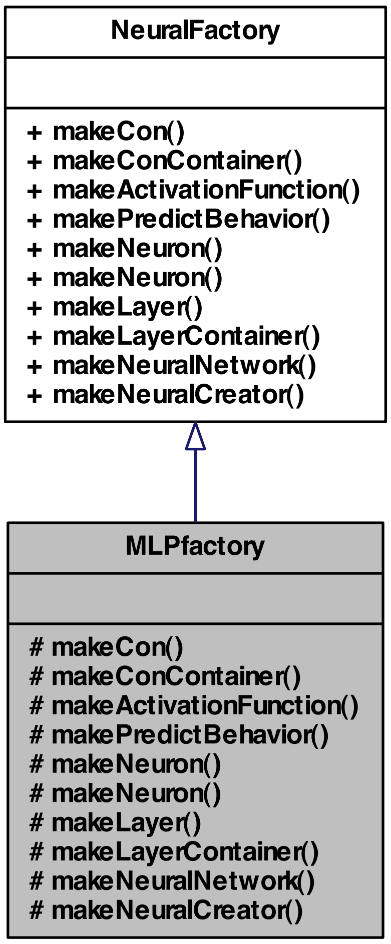
class MLPfactory -

`#include <MLPfactory.h>`

Inheritance diagram for MLPfactory:



Collaboration diagram for MLPfactory:



Protected Member Functions

- ConPtr makeCon (Neuron &neuron, double weight)
- ConContainerPtr makeConContainer ()
- virtual ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)=0
- PredictBehaviorPtr makePredictBehavior (NeuronPtr neuronPtr)
- NeuronPtr makeNeuron (Handler Id)
- NeuronPtr makeNeuron (Handler Id, NeuronIteratorPtr neuronIteratorPtr, double totalAmountOfParameters)

- LayerPtr makeLayer ()
- LayerContainerPtr makeLayerContainer ()
- NeuralNetworkPtr makeNeuralNetwork (NeuralFactory &neuralFactory)
- NeuralCreatorPtr makeNeuralCreator ()

5.32.1 Detailed Description

class MLPfactory -

Definition at line 5 of file MLPfactory.h.

5.32.2 Member Function Documentation

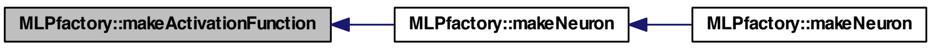
5.32.2.1 virtual **ActivationFunctionPtr** MLPfactory::makeActivationFunction (**NeuronPtr** *neuronPtr*) `[protected, pure virtual]`

Implements NeuralFactory.

Implemented in ArcTanFactory, CosineFactory, ElliotFactory, ExponentialFactory, Gauss-Factory, IdentityFactory, LogisticFactory, ReciprocalFactory, SineFactory, SquareFac-tory, TanhFactory, and ThresholdFactory.

Referenced by makeNeuron().

Here is the caller graph for this function:



5.32.2.2 **ConPtr** MLPfactory::makeCon (**Neuron** & *neuron*, double *weight*) `[protected, virtual]`

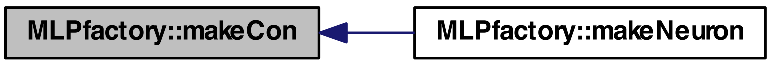
Implements NeuralFactory.

Definition at line 30 of file MLPfactory.cpp.

Referenced by makeNeuron().

```
{
  ConPtr conPtr(new Con(neuron, weight));
  return conPtr;
}
```

Here is the caller graph for this function:



5.32.2.3 ConContainerPtr MLPfactory::makeConContainer ( ) [protected, virtual]

Implements NeuralFactory.

Definition at line 37 of file MLPfactory.cpp.

```
{
  ConContainerPtr conContainerPtr(new SimpleContainer<ConPtr> );
  return conContainerPtr;
}
```

5.32.2.4 LayerPtr MLPfactory::makeLayer ( ) [protected, virtual]

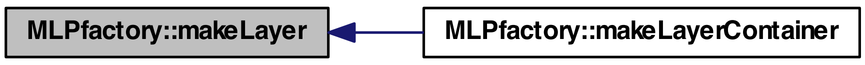
Implements NeuralFactory.

Definition at line 84 of file MLPfactory.cpp.

Referenced by makeLayerContainer().

```
{
  LayerPtr layerPtr( new SimpleContainer<NeuronPtr> );
  return layerPtr;
}
```

Here is the caller graph for this function:



5.32.2.5 LayerContainerPtr MLPfactory::makeLayerContainer ( ) [protected, virtual]

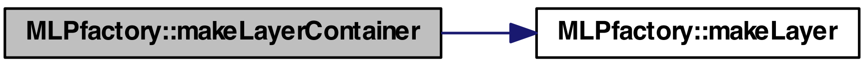
Implements NeuralFactory.

Definition at line 92 of file MLPfactory.cpp.

References makeLayer().

```
{
  LayerContainerPtr layerContainerPtr( new SimpleContainer<LayerPtr> );
  layerContainerPtr->push_back( makeLayer() );
  return layerContainerPtr;
}
```

Here is the call graph for this function:



5.32.2.6 NeuralCreatorPtr MLPfactory::makeNeuralCreator ( ) [protected, virtual]

Implements NeuralFactory.

Definition at line 109 of file MLPfactory.cpp.

```
{
  NeuralCreatorPtr neuralCreatorPtr(new SimpleNeuralCreator );
  return neuralCreatorPtr;
}
```

5.32.2.7 NeuralNetworkPtr MLPfactory::makeNeuralNetwork (NeuralFactory & *neuralFactory*) [protected, virtual]

Implements NeuralFactory.

Definition at line 101 of file MLPfactory.cpp.

```
{
  NeuralNetworkPtr neuralNetworkPtr(new SimpleNetwork(neuralFactory ) );
  return neuralNetworkPtr;
}
```

5.32.2.8 NeuronPtr MLPfactory::makeNeuron (Handler *Id*) [protected, virtual]

Implements NeuralFactory.

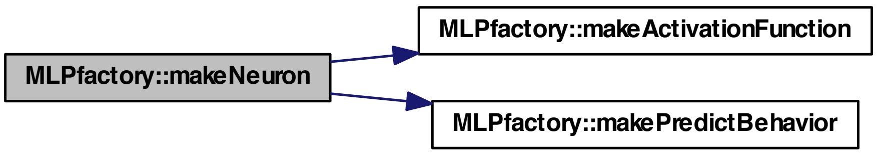
Definition at line 52 of file MLPfactory.cpp.

References makeActivationFunction(), and makePredictBehavior().

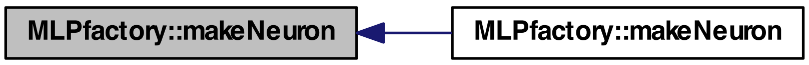
Referenced by makeNeuron().

```
{
  NeuronPtr neuronPtr(new SimpleNeuron(*this));
  neuronPtr->setId(Id);
  neuronPtr->setPredictBehavior(makePredictBehavior(neuronPtr));
  neuronPtr->setActivationFunction(makeActivationFunction(neuronPtr));
  return neuronPtr;
}
```

Here is the call graph for this function:


MLPfactory::makeNeuron
MLPfactory::makeActivationFunction
MLPfactory::makePredictBehavior

Here is the caller graph for this function:



5.32.2.9 NeuronPtr MLPfactory::makeNeuron (Handler *Id*, NeuronIteratorPtr *neuronIteratorPtr*, double *totalAmountOfParameters*) [protected, virtual]

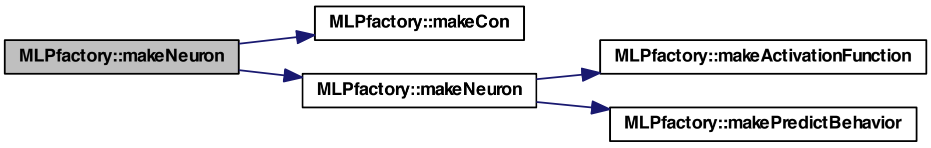
Implements NeuralFactory.

Definition at line 62 of file MLPfactory.cpp.

References MLPbehavior::d_bias, makeCon(), and makeNeuron().

```
{
  RNGScope scope;

  NeuronPtr neuronPtr(makeNeuron(Id));

  double extreme = sqrt(3 / totalAmountOfParameters);
  double weight;
  for (neuronIteratorPtr->first(); !neuronIteratorPtr->isDone(); neuronIteratorPt
      r->next())
    {
      weight =as<double>(runif(1, -extreme, extreme));
      neuronPtr->addCon(makeCon(*neuronIteratorPtr->currentItem(), weight));
    }

  MLPbehavior* mlpBehavior = dynamic_cast<MLPbehavior*>(neuronPtr->d_predictBehav
      ior.get()) ;
  mlpBehavior->d_bias=as<double>(runif(1, -extreme, extreme));

return neuronPtr;
}
```

Here is the call graph for this function:


MLPfactory::makeNeuron
MLPfactory::makeCon
MLPfactory::makeNeuron
MLPfactory::makeActivationFunction
MLPfactory::makePredictBehavior

5.32.2.10 PredictBehaviorPtr MLPfactory::makePredictBehavior (NeuronPtr *neuronPtr*) [protected, virtual]

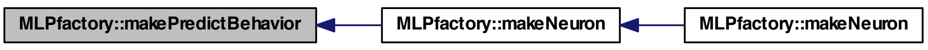
Implements NeuralFactory.

Definition at line 45 of file MLPfactory.cpp.

Referenced by makeNeuron().

```
{
  PredictBehaviorPtr predictBehaviorPtr(new MLPbehavior(neuronPtr));
  return predictBehaviorPtr;
}
```

Here is the caller graph for this function:



The documentation for this class was generated from the following files:

- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory

5.33 NetworkRinterface Class Reference

class NetworkRinterface -

`#include <NetworkRinterface.h>`

Public Member Functions

- NetworkRinterface ()
- void createFeedForwardNetwork (Rcpp::NumericVector numberOfNeurons)
- Rcpp::NumericMatrix predict (Rcpp::NumericMatrix numericMatrix)
- Rcpp::List train (Rcpp::List parameterList)
- size_type inputSize ()
- size_type outputSize ()
- void show ()
- bool validate ()

Private Attributes

- NeuralNetworkPtr d_neuralNetwork

5.33.1 Detailed Description

class NetworkRinterface -

Definition at line 3 of file NetworkRinterface.h.

5.33.2 Constructor & Destructor Documentation

5.33.2.1 NetworkRinterface::NetworkRinterface ( )

Definition at line 22 of file NetworkRinterface.cpp.

```
{

}
```

5.33.3 Member Function Documentation

5.33.3.1 void NetworkRinterface::createFeedForwardNetwork (Rcpp::NumericVector *numberOfNeurons*)

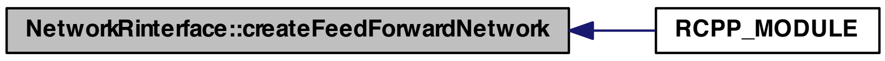
Definition at line 28 of file NetworkRinterface.cpp.

References d_neuralNetwork.

Referenced by RCPP_MODULE().

```
{
  NeuralFactoryPtr hiddenLayersFactoryPtr(new TanhFactory());
  NeuralFactoryPtr outputFactoryPtr(new IdentityFactory());
  NeuralCreatorPtr neuralCreator(outputFactoryPtr->makeNeuralCreator());
  d_neuralNetwork = neuralCreator->createFeedForwardNetwork(
      as<std::vector<int> > (numberOfNeurons), *hiddenLayersFactoryPtr,
      *outputFactoryPtr);
}
```

Here is the caller graph for this function:



5.33.3.2 size_type NetworkRinterface::inputSize ( )

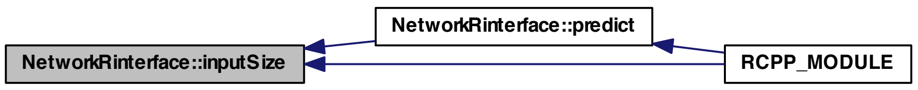
Definition at line 102 of file NetworkRinterface.cpp.

References d_neuralNetwork.

Referenced by predict(), and RCPP_MODULE().

```
{
  return d_neuralNetwork->inputSize();
}
```

Here is the caller graph for this function:



5.33.3.3 size_type NetworkRinterface::outputSize ( )

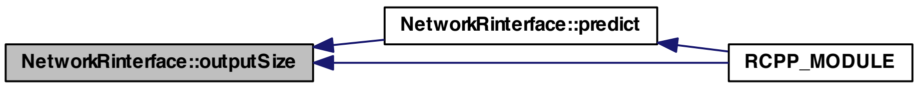
Definition at line 108 of file NetworkRinterface.cpp.

References d_neuralNetwork.

Referenced by predict(), and RCPP_MODULE().

```
{
  return d_neuralNetwork->outputSize();
}
```

Here is the caller graph for this function:



5.33.3.4 Rcpp::NumericMatrix NetworkRinterface::predict (Rcpp::NumericMatrix *numericMatrix*)

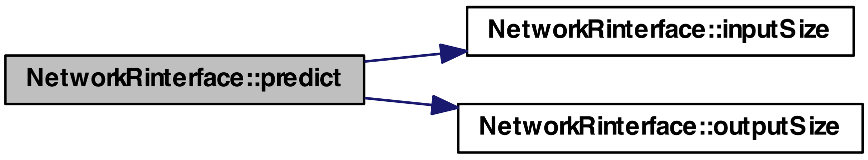
Definition at line 39 of file NetworkRinterface.cpp.

References d_neuralNetwork, inputSize(), and outputSize().

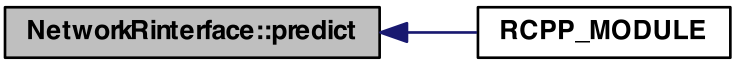
Referenced by RCPP_MODULE().

```
{
  BEGIN_RCPP

  // VALIDATION
  if (!d_neuralNetwork)
    {
      throw std::runtime_error( "\nUninitialized network. Please use any of the c
      reate methods available.\n");
    }

  bool checkIncorrectNumberOfRows(
      inputSize() != static_cast<size_type> (numericMatrix.nrow()));
  if (checkIncorrectNumberOfRows)
    {
      throw std::runtime_error(
          "\nIncorrect number or rows. The number of input neurons must be equal
      to the number of rows of the input matrix.\n");
    }

  Rcpp::NumericMatrix outputMatrix(outputSize(), numericMatrix.ncol());
  std::vector<double>::iterator inputIterator(numericMatrix.begin());
  std::vector<double>::iterator outputIterator(outputMatrix.begin());

  // PREDICT LOOP
  for (int i = 0; i < numericMatrix.ncol(); i++)
    {
      d_neuralNetwork->writeInput(inputIterator);
      d_neuralNetwork->singlePatternForwardAction();
      d_neuralNetwork->readOutput(outputIterator);
    }
  return outputMatrix;

END_RCPP}
```

Here is the call graph for this function:


NetworkRinterface::predict
NetworkRinterface::inputSize
NetworkRinterface::outputSize

Here is the caller graph for this function:



5.33.3.5 void NetworkRinterface::show ( )

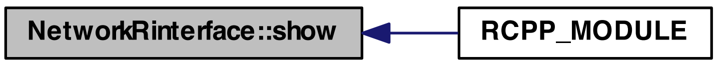
Definition at line 114 of file NetworkRinterface.cpp.

References d_neuralNetwork.

Referenced by RCPP_MODULE().

```
{

  if (!d_neuralNetwork)
    {
      Rprintf(
          "\nUninitialized network. Please use any of the create methods availabl
      e.\n");
    }
  else
    {
      d_neuralNetwork->show();
    }
}
```

Here is the caller graph for this function:



5.33.3.6 Rcpp::List NetworkRinterface::train (Rcpp::List *parameterList*)

Definition at line 77 of file NetworkRinterface.cpp.

References d_neuralNetwork.

```
{
  BEGIN_RCPP
    return d_neuralNetwork->train(parameterList);
  END_RCPP
}
```

5.33.3.7 bool NetworkRinterface::validate ( )

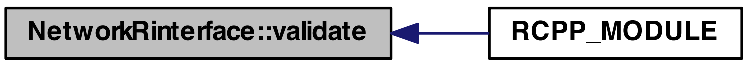
Definition at line 129 of file NetworkRinterface.cpp.

References d_neuralNetwork.

Referenced by RCPP_MODULE().

```
{
BEGIN_RCPP if (d_neuralNetwork)
  {
    return d_neuralNetwork->validate();
  }
else
  {
    throw std::runtime_error(
        "\nUninitialized network. Please use any of the create methods available.
      \n");
    return false;
  }
END_RCPP
}
```

Here is the caller graph for this function:



5.33.4 Member Data Documentation

5.33.4.1 NeuralNetworkPtr NetworkRinterface::d_neuralNetwork [private]

Definition at line 6 of file NetworkRinterface.h.

Referenced by createFeedForwardNetwork(), inputSize(), outputSize(), predict(), show(), train(), and validate().

The documentation for this class was generated from the following files:

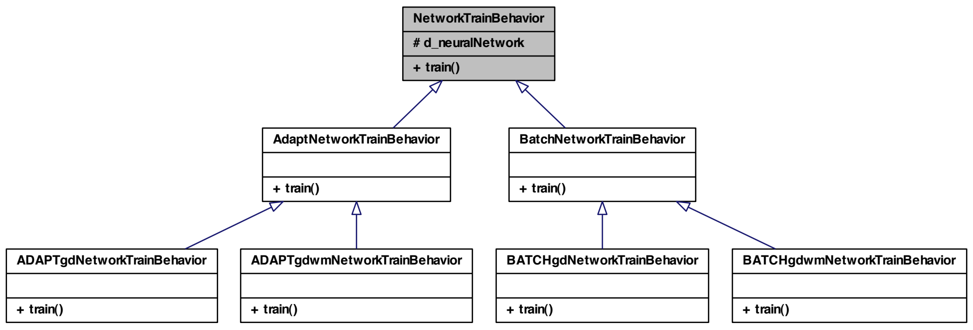
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NetworkRir

5.34 NetworkTrainBehavior Class Reference

class NetworkTrainBehavior -

`#include <NetworkTrainBehavior.h>`

Inheritance diagram for NetworkTrainBehavior:


NetworkTrainBehavior
# d_neuralNetwork
+ train()
AdaptNetworkTrainBehavior
+ train()
BatchNetworkTrainBehavior
+ train()
ADAPTgdNetworkTrainBehavior
+ train()
ADAPTgdwmNetworkTrainBehavior
+ train()
BATCHgdNetworkTrainBehavior
+ train()
BATCHgdwmNetworkTrainBehavior
+ train()

Public Member Functions

- virtual Rcpp::List train (Rcpp::List parameterList)=0

Protected Attributes

- NeuralNetworkWeakPtr d_neuralNetwork

5.34.1 Detailed Description

class NetworkTrainBehavior -

Definition at line 4 of file NetworkTrainBehavior.h.

5.34.2 Member Function Documentation

5.34.2.1 virtual Rcpp::List NetworkTrainBehavior::train (Rcpp::List *parameterList*) [pure virtual]

Implemented in ADAPTgdNetworkTrainBehavior, ADAPTgdwmNetworkTrainBehavior, AdaptNetworkTrainBehavior, BATCHgdNetworkTrainBehavior, BATCHgdwmNetworkTrain-Behavior, and BatchNetworkTrainBehavior.

5.34.3 Member Data Documentation

5.34.3.1 NeuralNetworkWeakPtr NetworkTrainBehavior::d_neuralNetwork [protected]

Definition at line 7 of file NetworkTrainBehavior.h.

Referenced by ADAPTgdNetworkTrainBehavior::train().

The documentation for this class was generated from the following file:

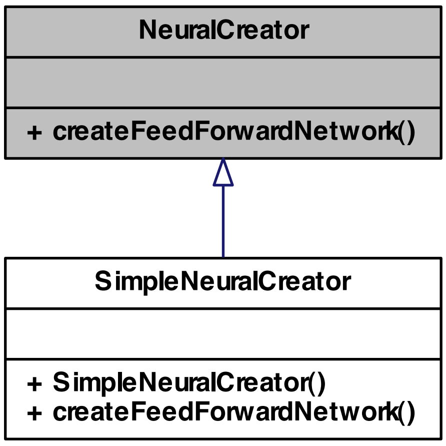
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NetworkT

5.35 NeuralCreator Class Reference

class NeuralCreator -

`#include <NeuralCreator.h>`

Inheritance diagram for NeuralCreator:



Public Member Functions

- virtual NeuralNetworkPtr createFeedForwardNetwork (std::vector< int > numberOfNeurons, NeuralFactory &hiddenLayersFactory, NeuralFactory &outputLayerFactory)=0

5.35.1 Detailed Description

class NeuralCreator -

Definition at line 4 of file NeuralCreator.h.

5.35.2 Member Function Documentation

5.35.2.1 virtual **NeuralNetworkPtr** NeuralCreator::createFeedForwardNetwork (std::vector< int > *numberOfNeurons*, **NeuralFactory** & *hiddenLayersFactory*, **NeuralFactory** & *outputLayerFactory*) `[pure virtual]`

Implemented in SimpleNeuralCreator.

The documentation for this class was generated from the following file:

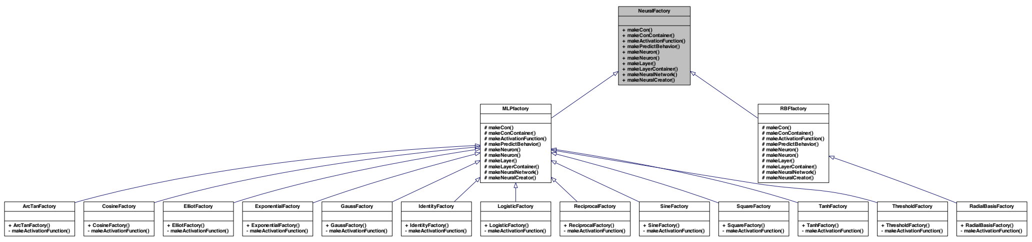
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.36 NeuralFactory Class Reference

class NeuralFactory -

`#include <NeuralFactory.h>`

Inheritance diagram for NeuralFactory:



Public Member Functions

- virtual ConPtr makeCon (Neuron &neuron, double weight)=0
- virtual ConContainerPtr makeConContainer ()=0

- virtual ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)=0
- virtual PredictBehaviorPtr makePredictBehavior (NeuronPtr neuronPtr)=0
- virtual NeuronPtr makeNeuron (Handler Id)=0
- virtual NeuronPtr makeNeuron (Handler Id, NeuronIteratorPtr neuronIteratorPtr, double totalAmountOfParameters)=0
- virtual LayerPtr makeLayer ()=0
- virtual LayerContainerPtr makeLayerContainer ()=0
- virtual NeuralNetworkPtr makeNeuralNetwork (NeuralFactory &neuralFactory)=0
- virtual NeuralCreatorPtr makeNeuralCreator ()=0

5.36.1 Detailed Description

class NeuralFactory -

Definition at line 4 of file NeuralFactory.h.

5.36.2 Member Function Documentation

5.36.2.1 virtual **ActivationFunctionPtr** NeuralFactory::makeActivationFunction (**NeuronPtr** *neuronPtr*) `[pure virtual]`

Implemented in ArcTanFactory, CosineFactory, ElliotFactory, ExponentialFactory, GaussFactory, IdentityFactory, LogisticFactory, MLPfactory, RadialBasisFactory, RBFfactory, ReciprocalFactory, SineFactory, SquareFactory, TanhFactory, and ThresholdFactory.

5.36.2.2 virtual **ConPtr** NeuralFactory::makeCon (**Neuron** & *neuron*, double *weight*) `[pure virtual]`

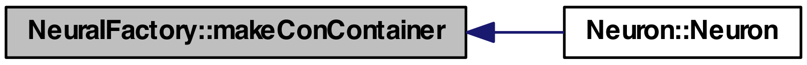
Implemented in MLPfactory.

5.36.2.3 virtual **ConContainerPtr** NeuralFactory::makeConContainer ( ) `[pure virtual]`

Implemented in MLPfactory, and RBFfactory.

Referenced by Neuron::Neuron().

Here is the caller graph for this function:

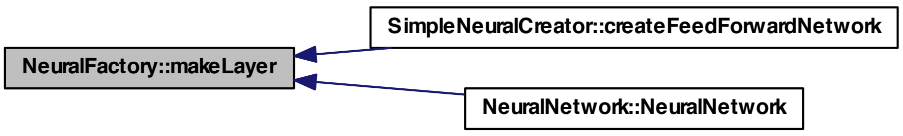


5.36.2.4 virtual LayerPtr NeuralFactory::makeLayer ( ) [pure virtual]

Implemented in MLPfactory, and RBFfactory.

Referenced by SimpleNeuralCreator::createFeedForwardNetwork(), and NeuralNetwork::NeuralNetwork().

Here is the caller graph for this function:

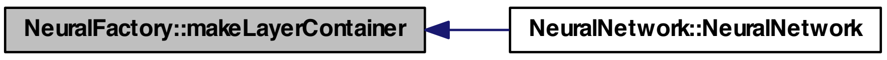

NeuralFactory::makeLayer
SimpleNeuralCreator::createFeedForwardNetwork
NeuralNetwork::NeuralNetwork

5.36.2.5 virtual LayerContainerPtr NeuralFactory::makeLayerContainer ( ) [pure virtual]

Implemented in MLPfactory, and RBFfactory.

Referenced by NeuralNetwork::NeuralNetwork().

Here is the caller graph for this function:


NeuralFactory::makeLayerContainer
NeuralNetwork::NeuralNetwork

5.36.2.6 virtual **NeuralCreatorPtr** NeuralFactory::makeNeuralCreator ( ) [pure virtual]

Implemented in MLPfactory, and RBFfactory.

5.36.2.7 virtual **NeuralNetworkPtr** NeuralFactory::makeNeuralNetwork (**NeuralFactory &** *neuralFactory*) [pure virtual]

Implemented in MLPfactory, and RBFfactory.

Referenced by SimpleNeuralCreator::createFeedForwardNetwork().

Here is the caller graph for this function:

NeuralFactory::makeNeuralNetwork
SimpleNeuralCreator::createFeedForwardNetwork

5.36.2.8 virtual **NeuronPtr** NeuralFactory::makeNeuron (**Handler** *Id*) [pure virtual]

Implemented in MLPfactory, and RBFfactory.

Referenced by SimpleNeuralCreator::createFeedForwardNetwork().

Here is the caller graph for this function:

NeuralFactory::makeNeuron
SimpleNeuralCreator::createFeedForwardNetwork

5.36.2.9 virtual **NeuronPtr** NeuralFactory::makeNeuron (**Handler** *Id,* **NeuronIteratorPtr** *neuronIteratorPtr,* **double** *totalAmountOfParameters*) [pure virtual]

Implemented in MLPfactory, and RBFfactory.

5.36.2.10 virtual **PredictBehaviorPtr** NeuralFactory::makePredictBehavior (**NeuronPtr** *neuronPtr*) `[pure virtual]`

Implemented in MLPfactory.

The documentation for this class was generated from the following file:

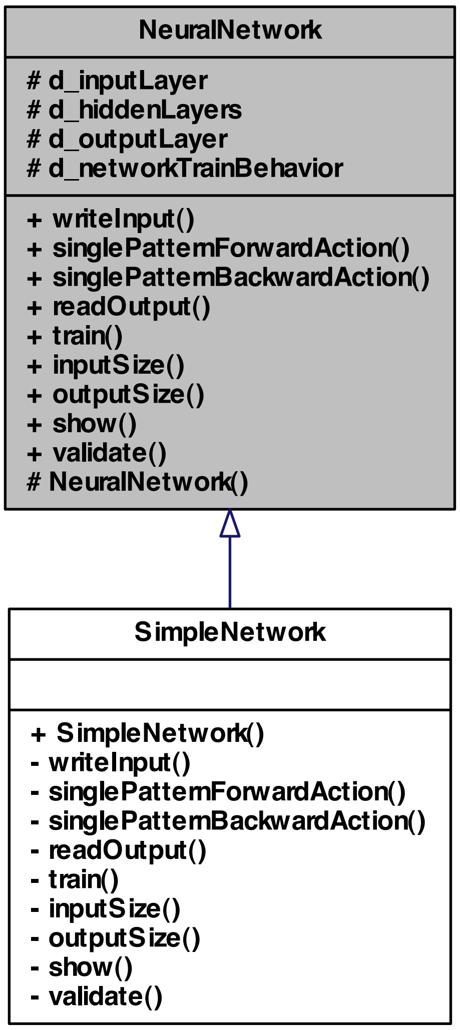
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.37 NeuralNetwork Class Reference

class NeuralNetwork -

`#include <NeuralNetwork.h>`

Inheritance diagram for NeuralNetwork:



Public Member Functions

- virtual void writeInput (std::vector< double >::iterator &iterator)=0
- virtual void singlePatternForwardAction ()=0
- virtual void singlePatternBackwardAction ()=0
- virtual void readOutput (std::vector< double >::iterator &iterator)=0

- virtual Rcpp::List train (Rcpp::List parameterList)=0
- virtual size_type inputSize ()=0
- virtual size_type outputSize ()=0
- virtual void show ()=0
- virtual bool validate ()=0

Protected Member Functions

- NeuralNetwork (NeuralFactory &neuralFactory)

Protected Attributes

- LayerPtr d_inputLayer
- LayerContainerPtr d_hiddenLayers
- LayerPtr d_outputLayer
- NetworkTrainBehaviorPtr d_networkTrainBehavior

Friends

- class SimpleNeuralCreator

5.37.1 Detailed Description

class NeuralNetwork -

Definition at line 3 of file NeuralNetwork.h.

5.37.2 Constructor & Destructor Documentation

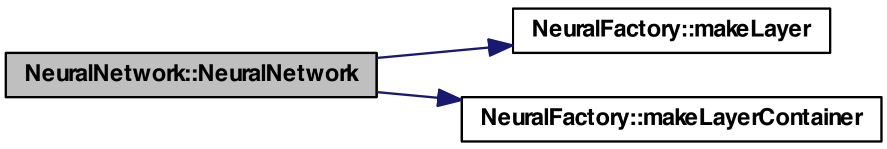
5.37.2.1 NeuralNetwork::NeuralNetwork (**NeuralFactory** & *neuralFactory*) `[protected]`

Definition at line 12 of file NeuralNetwork.cpp.

References d_hiddenLayers, d_inputLayer, d_outputLayer, NeuralFactory::makeLayer(), and NeuralFactory::makeLayerContainer().

```
{
  d_inputLayer  = neuralFactory.makeLayer();
  d_hiddenLayers = neuralFactory.makeLayerContainer();
  d_outputLayer = neuralFactory.makeLayer();
}
```

Here is the call graph for this function:


NeuralNetwork::NeuralNetwork
NeuralFactory::makeLayer
NeuralFactory::makeLayerContainer

5.37.3 Member Function Documentation

5.37.3.1 virtual size_type NeuralNetwork::inputSize ( ) [pure virtual]

Implemented in SimpleNetwork.

5.37.3.2 virtual size_type NeuralNetwork::outputSize ( ) [pure virtual]

Implemented in SimpleNetwork.

5.37.3.3 virtual void NeuralNetwork::readOutput (std::vector< double >::iterator & *iterator*) [pure virtual]

Implemented in SimpleNetwork.

5.37.3.4 virtual void NeuralNetwork::show ( ) [pure virtual]

Implemented in SimpleNetwork.

5.37.3.5 virtual void NeuralNetwork::singlePatternBackwardAction ( ) [pure virtual]

Implemented in SimpleNetwork.

5.37.3.6 virtual void NeuralNetwork::singlePatternForwardAction ( ) [pure virtual]

Implemented in SimpleNetwork.

5.37.3.7 virtual Rcpp::List NeuralNetwork::train (Rcpp::List *parameterList*) [pure virtual]

Implemented in SimpleNetwork.

5.37.3.8 virtual bool NeuralNetwork::validate ( ) [pure virtual]

Implemented in SimpleNetwork.

5.37.3.9 virtual void NeuralNetwork::writeInput (std::vector< double >::iterator & *iterator*) [pure virtual]

Implemented in SimpleNetwork.

5.37.4 Friends And Related Function Documentation

5.37.4.1 friend class SimpleNeuralCreator [friend]

Definition at line 12 of file NeuralNetwork.h.

5.37.5 Member Data Documentation

5.37.5.1 LayerContainerPtr NeuralNetwork::d_hiddenLayers [protected]

Definition at line 7 of file NeuralNetwork.h.

Referenced by NeuralNetwork(), SimpleNetwork::show(), SimpleNetwork::singlePatternBackwardAction(), SimpleNetwork::singlePatternForwardAction(), and SimpleNetwork::validate().

5.37.5.2 LayerPtr NeuralNetwork::d_inputLayer [protected]

Definition at line 6 of file NeuralNetwork.h.

Referenced by SimpleNetwork::inputSize(), NeuralNetwork(), SimpleNetwork::show(), SimpleNetwork::validate(), and SimpleNetwork::writeInput().

5.37.5.3 NetworkTrainBehaviorPtr NeuralNetwork::d_networkTrainBehavior [protected]

Definition at line 9 of file NeuralNetwork.h.

Referenced by SimpleNetwork::train().

5.37.5.4 LayerPtr NeuralNetwork::d_outputLayer [protected]

Definition at line 8 of file NeuralNetwork.h.

Referenced by NeuralNetwork(), SimpleNetwork::outputSize(), SimpleNetwork::readOutput(), SimpleNetwork::show(), SimpleNetwork::singlePatternBackwardAction(), SimpleNetwork::singlePatternForwardAction(), and SimpleNetwork::validate().

The documentation for this class was generated from the following files:

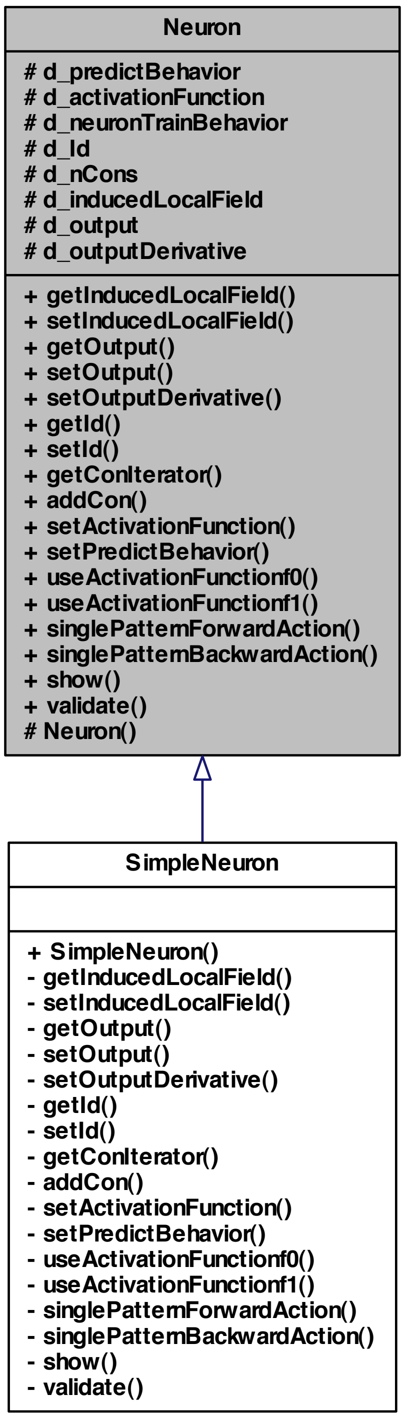
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NeuralNe
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NeuralNetwork.cpp

5.38 Neuron Class Reference

class Neuron -

`#include <Neuron.h>`

Inheritance diagram for Neuron:



Public Member Functions

- virtual double getInducedLocalField ()=0
- virtual void setInducedLocalField (double inducedLocalField)=0
- virtual double getOutput ()=0
- virtual void setOutput (double output)=0
- virtual void setOutputDerivative (double outputDerivative)=0
- virtual Handler getId ()=0
- virtual void setId (Handler Id)=0
- virtual ConIteratorPtr getConIterator ()=0
- virtual void addCon (ConPtr conPtr)=0
- virtual void setActivationFunction (ActivationFunctionPtr activationFunctionPtr)=0
- virtual void setPredictBehavior (PredictBehaviorPtr predictBehaviorPtr)=0
- virtual double useActivationFunctionf0 ()=0
- virtual double useActivationFunctionf1 ()=0
- virtual void singlePatternForwardAction ()=0
- virtual void singlePatternBackwardAction ()=0
- virtual void show ()=0
- virtual bool validate ()=0

Protected Member Functions

- Neuron (NeuralFactory &neuralFactory)

Protected Attributes

- PredictBehaviorPtr d_predictBehavior
- ActivationFunctionPtr d_activationFunction
- NeuronTrainBehaviorPtr d_neuronTrainBehavior
- Handler d_Id
- ConContainerPtr d_nCons
- double d_inducedLocalField
- double d_output
- double d_outputDerivative

Friends

- class MLPfactory

5.38.1 Detailed Description

class Neuron -

Definition at line 3 of file Neuron.h.

5.38.2 Constructor & Destructor Documentation

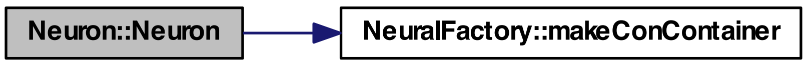
5.38.2.1 Neuron::Neuron (NeuralFactory & *neuralFactory*) [protected]

Definition at line 12 of file Neuron.cpp.

References d_nCons, and NeuralFactory::makeConContainer().

```
                                              :
  d_Id(NA_INTEGER), d_inducedLocalField(0.0), d_output(0.0)
{
  d_nCons = neuralFactory.makeConContainer();
}
```

Here is the call graph for this function:



5.38.3 Member Function Documentation

5.38.3.1 virtual void Neuron::addCon (ConPtr *conPtr*) [pure virtual]

Implemented in SimpleNeuron.

5.38.3.2 virtual ConIteratorPtr Neuron::getConIterator ( ) [pure virtual]

Implemented in SimpleNeuron.

5.38.3.3 virtual Handler Neuron::getId ( ) [pure virtual]

Implemented in SimpleNeuron.

5.38.3.4 virtual double Neuron::getInducedLocalField ( ) [pure virtual]

Implemented in SimpleNeuron.

5.38.3.5 virtual double Neuron::getOutput ( ) [pure virtual]

Implemented in SimpleNeuron.

5.38.3.6 virtual void Neuron::setActivationFunction (ActivationFunctionPtr *activationFunctionPtr*) `[pure virtual]`

Implemented in SimpleNeuron.

5.38.3.7 virtual void Neuron::setId (Handler *Id*) `[pure virtual]`

Implemented in SimpleNeuron.

5.38.3.8 virtual void Neuron::setInducedLocalField (double *inducedLocalField*) `[pure virtual]`

Implemented in SimpleNeuron.

5.38.3.9 virtual void Neuron::setOutput (double *output*) `[pure virtual]`

Implemented in SimpleNeuron.

5.38.3.10 virtual void Neuron::setOutputDerivative (double *outputDerivative*) `[pure virtual]`

Implemented in SimpleNeuron.

5.38.3.11 virtual void Neuron::setPredictBehavior (PredictBehaviorPtr *predictBehaviorPtr*) `[pure virtual]`

Implemented in SimpleNeuron.

5.38.3.12 virtual void Neuron::show ( ) `[pure virtual]`

Implemented in SimpleNeuron.

5.38.3.13 virtual void Neuron::singlePatternBackwardAction ( ) `[pure virtual]`

Implemented in SimpleNeuron.

5.38.3.14 virtual void Neuron::singlePatternForwardAction ( ) `[pure virtual]`

Implemented in SimpleNeuron.

5.38.3.15 virtual double Neuron::useActivationFunctionf0 ( ) `[pure virtual]`

Implemented in SimpleNeuron.

5.38.3.16 virtual double Neuron::useActivationFunctionf1 ( ) [pure virtual]

Implemented in SimpleNeuron.

5.38.3.17 virtual bool Neuron::validate ( ) [pure virtual]

Implemented in SimpleNeuron.

5.38.4 Friends And Related Function Documentation

5.38.4.1 friend class **MLPfactory** [friend]

Definition at line 16 of file Neuron.h.

5.38.5 Member Data Documentation

5.38.5.1 **ActivationFunctionPtr Neuron::d_activationFunction** [protected]

Definition at line 7 of file Neuron.h.

Referenced by SimpleNeuron::setActivationFunction(), SimpleNeuron::useActivationFunctionf0(), and SimpleNeuron::useActivationFunctionf1().

5.38.5.2 **Handler Neuron::d_Id** [protected]

Definition at line 9 of file Neuron.h.

Referenced by SimpleNeuron::getId(), and SimpleNeuron::setId().

5.38.5.3 double **Neuron::d_inducedLocalField** [protected]

Definition at line 11 of file Neuron.h.

Referenced by SimpleNeuron::getInducedLocalField(), and SimpleNeuron::setInducedLocalField().

5.38.5.4 **ConContainerPtr Neuron::d_nCons** [protected]

Definition at line 10 of file Neuron.h.

Referenced by SimpleNeuron::addCon(), SimpleNeuron::getConIterator(), Neuron(), and SimpleNeuron::show().

5.38.5.5 **NeuronTrainBehaviorPtr Neuron::d_neuronTrainBehavior** [protected]

Definition at line 8 of file Neuron.h.

Referenced by SimpleNeuron::singlePatternBackwardAction().

5.38.5.6 double Neuron::d_output `[protected]`

Definition at line 12 of file Neuron.h.

Referenced by SimpleNeuron::getOutput(), SimpleNeuron::setOutput(), and SimpleNeuron::show().

5.38.5.7 double Neuron::d_outputDerivative `[protected]`

Definition at line 13 of file Neuron.h.

Referenced by SimpleNeuron::setOutputDerivative().

5.38.5.8 PredictBehaviorPtr Neuron::d_predictBehavior `[protected]`

Definition at line 6 of file Neuron.h.

Referenced by SimpleNeuron::setPredictBehavior(), SimpleNeuron::show(), and SimpleNeuron::singlePatternForwardAction().

The documentation for this class was generated from the following files:

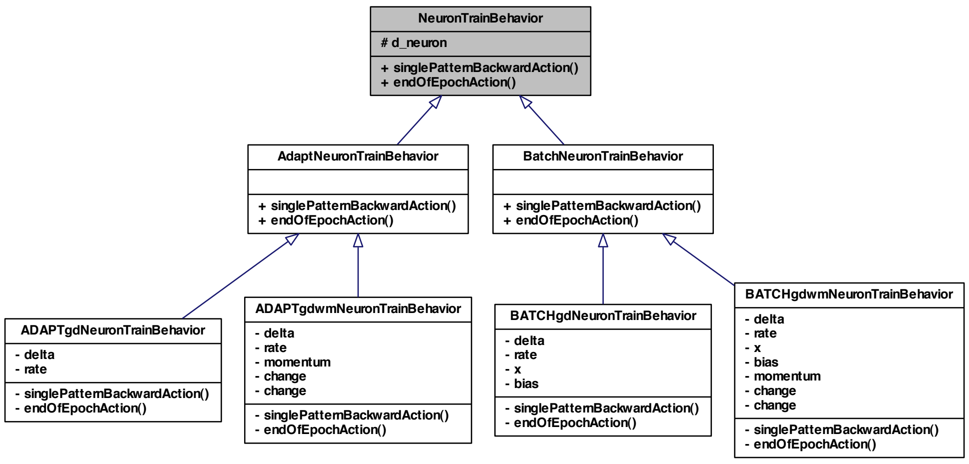
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Neuron.h
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Neuron.cpp

5.39 NeuronTrainBehavior Class Reference

class NeuronTrainBehavior -

`#include <NeuronTrainBehavior.h>`

Inheritance diagram for NeuronTrainBehavior:



Public Member Functions

- virtual void singlePatternBackwardAction ()=0
- virtual void endOfEpochAction ()=0

Protected Attributes

- NeuronWeakPtr d_neuron

5.39.1 Detailed Description

class NeuronTrainBehavior -

Definition at line 4 of file NeuronTrainBehavior.h.

5.39.2 Member Function Documentation

5.39.2.1 virtual void NeuronTrainBehavior::endOfEpochAction ( ) [pure virtual]

Implemented in ADAPTgdNeuronTrainBehavior, ADAPTgdwmNeuronTrainBehavior, Adapt-NeuronTrainBehavior, BATCHgdNeuronTrainBehavior, BATCHgdwmNeuronTrainBehavior, and BatchNeuronTrainBehavior.

5.39.2.2 virtual void NeuronTrainBehavior::singlePatternBackwardAction ( ) [pure virtual]

Implemented in ADAPTgdNeuronTrainBehavior, ADAPTgdwmNeuronTrainBehavior, Adapt-NeuronTrainBehavior, BATCHgdNeuronTrainBehavior, BATCHgdwmNeuronTrainBehav-ior, and BatchNeuronTrainBehavior.

5.39.3 Member Data Documentation

5.39.3.1 NeuronWeakPtr NeuronTrainBehavior::d_neuron [protected]

Definition at line 7 of file NeuronTrainBehavior.h.

The documentation for this class was generated from the following file:

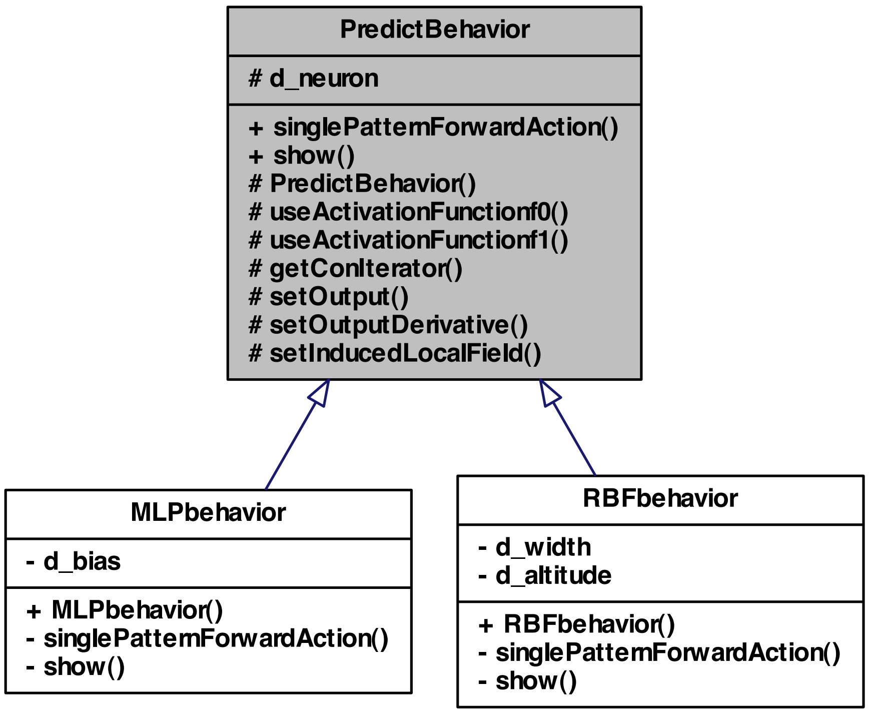
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NeuronTra

5.40 PredictBehavior Class Reference

class PredictBehavior -

`#include <PredictBehavior.h>`

Inheritance diagram for PredictBehavior:



Public Member Functions

- virtual void singlePatternForwardAction ()=0
- virtual void show ()=0

Protected Member Functions

- PredictBehavior (NeuronPtr neuronPtr)
- double useActivationFunctionf0 ()
- double useActivationFunctionf1 ()
- ConIteratorPtr getConIterator ()
- void setOutput (double output)
- void setOutputDerivative (double outputDerivative)
- void setInducedLocalField (double inducedLocalField)

Protected Attributes

- NeuronWeakPtr d_neuron

5.40.1 Detailed Description

class PredictBehavior -

Definition at line 4 of file PredictBehavior.h.

5.40.2 Constructor & Destructor Documentation

5.40.2.1 PredictBehavior::PredictBehavior (**NeuronPtr** *neuronPtr*) [protected]

Definition at line 14 of file PredictBehavior.cpp.

```
                                                    :
  d_neuron(neuronPtr)
{
}
```

5.40.3 Member Function Documentation

5.40.3.1 **ConIteratorPtr** PredictBehavior::getConIterator ( ) [protected]

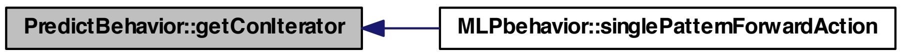
Definition at line 36 of file PredictBehavior.cpp.

References d_neuron.

Referenced by MLPbehavior::singlePatternForwardAction().

```
{
  NeuronPtr neuronPtr( d_neuron.lock() ) ;
  return neuronPtr->getConIterator();
}
```

Here is the caller graph for this function:


PredictBehavior::getConIterator
MLPbehavior::singlePatternForwardAction

5.40.3.2 void PredictBehavior::setInducedLocalField (double *inducedLocalField*) [protected]

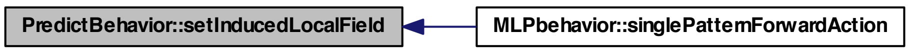
Definition at line 59 of file PredictBehavior.cpp.

References d_neuron.

Referenced by MLPbehavior::singlePatternForwardAction().

```
{
  NeuronPtr neuronPtr( d_neuron.lock() ) ;
  return neuronPtr->setInducedLocalField(inducedLocalField);
}
```

Here is the caller graph for this function:


PredictBehavior::setInducedLocalField
MLPbehavior::singlePatternForwardAction

5.40.3.3 void PredictBehavior::setOutput (double *output*) [protected]

Definition at line 43 of file PredictBehavior.cpp.

References d_neuron.

Referenced by MLPbehavior::singlePatternForwardAction().

```
{
  NeuronPtr neuronPtr( d_neuron.lock() ) ;
  return neuronPtr->setOutput(output);
}
```

Here is the caller graph for this function:

PredictBehavior::setOutput
MLPbehavior::singlePatternForwardAction

5.40.3.4 void PredictBehavior::setOutputDerivative (double *outputDerivative*) [protected]

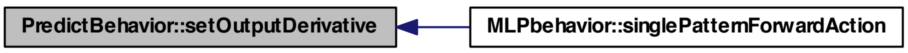
Definition at line 51 of file PredictBehavior.cpp.

References d_neuron.

Referenced by MLPbehavior::singlePatternForwardAction().

```
{
  NeuronPtr neuronPtr( d_neuron.lock() ) ;
  return neuronPtr->setOutputDerivative(outputDerivative);
}
```

Here is the caller graph for this function:


PredictBehavior::setOutputDerivative
MLPbehavior::singlePatternForwardAction

5.40.3.5 virtual void PredictBehavior::show ( ) [pure virtual]

Implemented in MLPbehavior, and RBFbehavior.

5.40.3.6 virtual void PredictBehavior::singlePatternForwardAction ( ) [pure virtual]

Implemented in MLPbehavior, and RBFbehavior.

5.40.3.7 double PredictBehavior::useActivationFunctionf0 ( ) [protected]

Definition at line 20 of file PredictBehavior.cpp.

References d_neuron.

Referenced by MLPbehavior::singlePatternForwardAction().

```
{
  NeuronPtr neuronPtr( d_neuron.lock() ) ;
  return neuronPtr->useActivationFunctionf0();
}
```

Here is the caller graph for this function:

PredictBehavior::useActivationFunctionf0
MLPbehavior::singlePatternForwardAction

5.40.3.8 double PredictBehavior::useActivationFunctionf1 ( ) [protected]

Definition at line 28 of file PredictBehavior.cpp.

References d_neuron.

Referenced by MLPbehavior::singlePatternForwardAction().

```
{
  NeuronPtr neuronPtr( d_neuron.lock() ) ;
  return neuronPtr->useActivationFunctionf1();
}
```

Here is the caller graph for this function:

PredictBehavior::useActivationFunctionf1
MLPbehavior::singlePatternForwardAction

5.40.4 Member Data Documentation

5.40.4.1 NeuronWeakPtr PredictBehavior::d_neuron [protected]

Definition at line 7 of file PredictBehavior.h.

Referenced by getConIterator(), setInducedLocalField(), setOutput(), setOutputDerivative(), useActivationFunctionf0(), and useActivationFunctionf1().

The documentation for this class was generated from the following files:

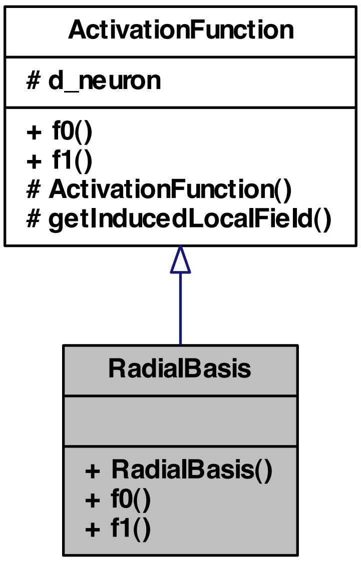
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/PredictBeh

5.41 RadialBasis Class Reference

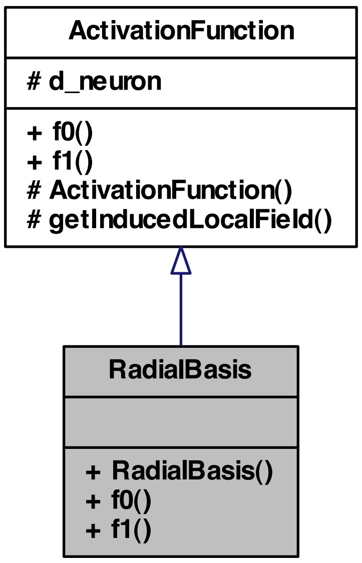
class RadialBasis -

```
#include <RadialBasis.h>
```

Inheritance diagram for RadialBasis:



Collaboration diagram for RadialBasis:



Public Member Functions

- RadialBasis (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.41.1 Detailed Description

class RadialBasis -

Definition at line 5 of file RadialBasis.h.

5.41.2 Constructor & Destructor Documentation

5.41.2.1 RadialBasis::RadialBasis (NeuronPtr *neuronPtr*)

5.41.3 Member Function Documentation

5.41.3.1 double RadialBasis::f0 ( ) [virtual]

Implements ActivationFunction.

5.41.3.2 double RadialBasis::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

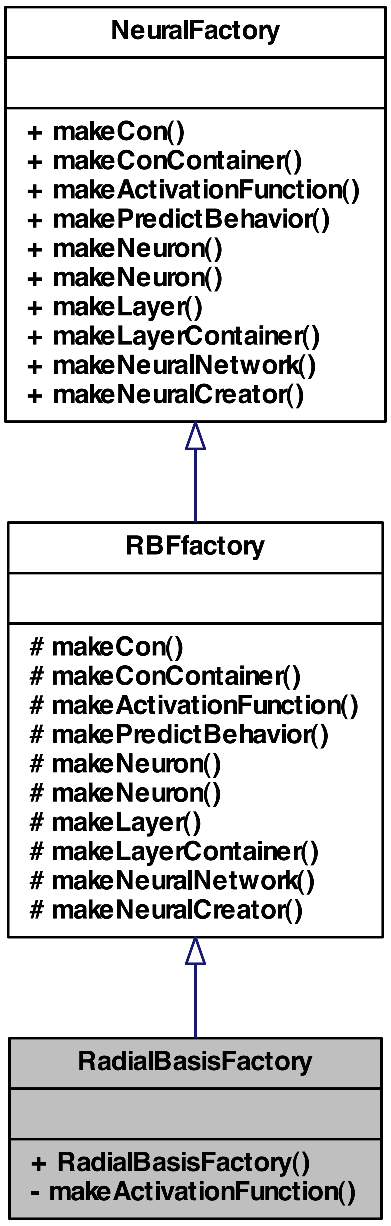
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RadialBas

5.42 RadialBasisFactory Class Reference

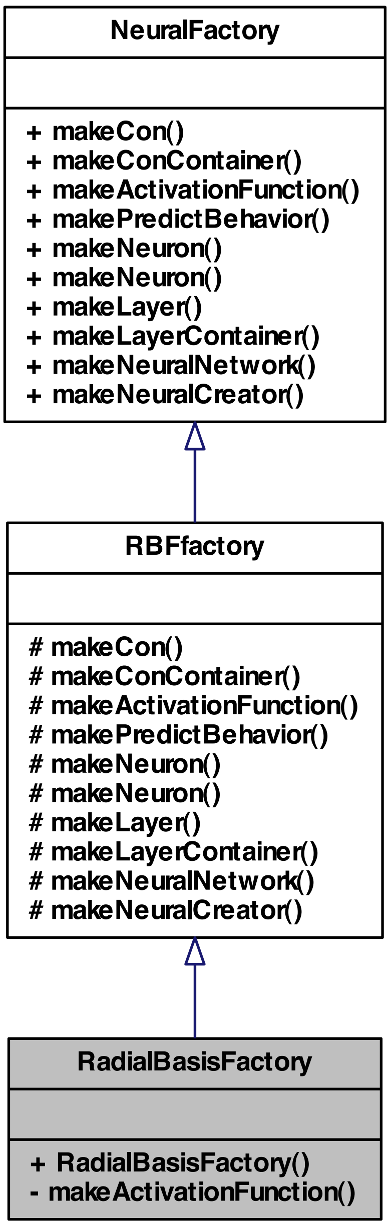
class RadialBasisFactory -

```
#include <RadialBasisFactory.h>
```

Inheritance diagram for RadialBasisFactory:



Collaboration diagram for RadialBasisFactory:



Public Member Functions

- RadialBasisFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.42.1 Detailed Description

class RadialBasisFactory -

Definition at line 5 of file RadialBasisFactory.h.

5.42.2 Constructor & Destructor Documentation

5.42.2.1 RadialBasisFactory::RadialBasisFactory ( )

5.42.3 Member Function Documentation

5.42.3.1 ActivationFunctionPtr RadialBasisFactory::makeActivationFunction (NeuronPtr *neuronPtr*) `[private, virtual]`

Implements RBFfactory.

The documentation for this class was generated from the following file:

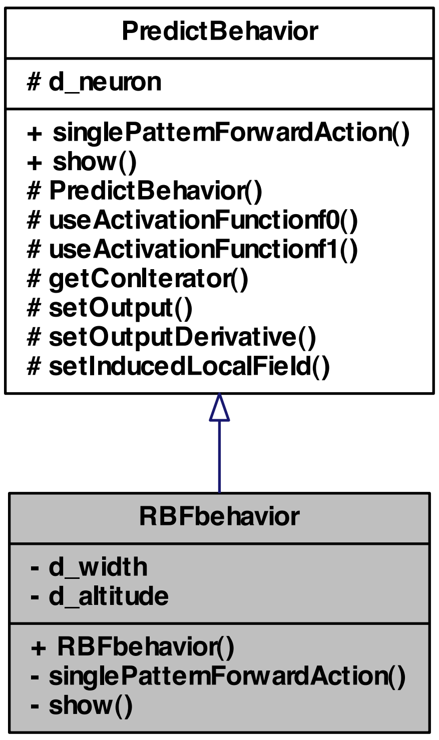
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.43 RBFbehavior Class Reference

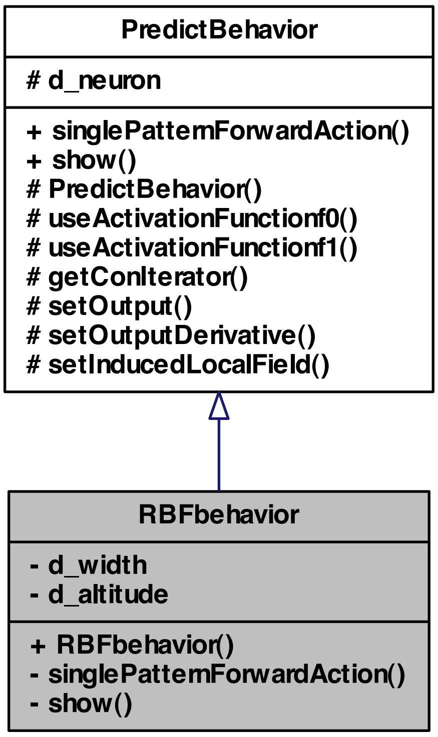
class RBFbehavior -

`#include <RBFbehavior.h>`

Inheritance diagram for RBFbehavior:



Collaboration diagram for RBFbehavior:



Public Member Functions

- RBFbehavior (NeuronPtr neuronPtr)

Private Member Functions

- void singlePatternForwardAction ()
- void show ()

Private Attributes

- double d_width
- double d_altitude

5.43.1 Detailed Description

class RBFbehavior -

Definition at line 5 of file RBFbehavior.h.

5.43.2 Constructor & Destructor Documentation

5.43.2.1 RBFbehavior::RBFbehavior (**NeuronPtr** *neuronPtr*)

5.43.3 Member Function Documentation

5.43.3.1 void RBFbehavior::show ( ) `[private, virtual]`

Implements PredictBehavior.

5.43.3.2 void RBFbehavior::singlePatternForwardAction ( ) `[private, virtual]`

Implements PredictBehavior.

5.43.4 Member Data Documentation

5.43.4.1 double **RBFbehavior::d_altitude** `[private]`

Definition at line 9 of file RBFbehavior.h.

5.43.4.2 double **RBFbehavior::d_width** `[private]`

Definition at line 8 of file RBFbehavior.h.

The documentation for this class was generated from the following file:

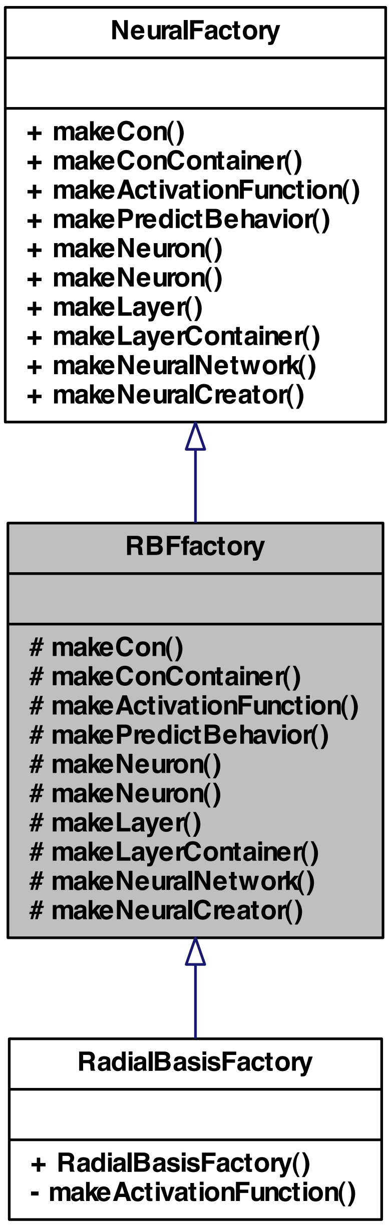
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RBFbeha

5.44 RBFfactory Class Reference

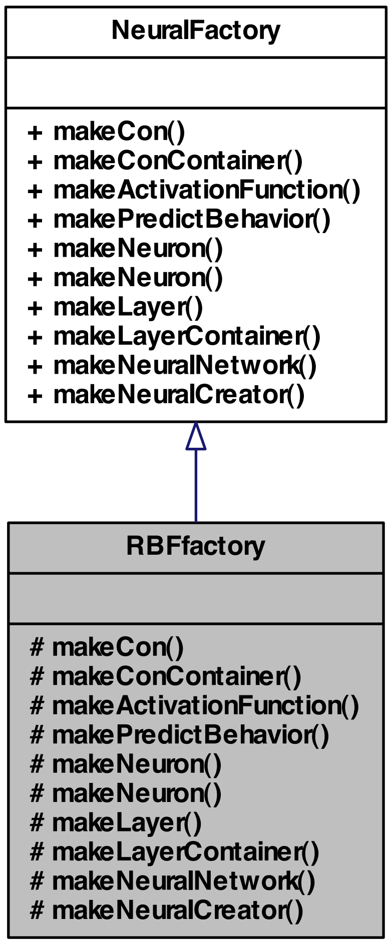
class RBFfactory -

`#include <RBFfactory.h>`

Inheritance diagram for RBFfactory:



Collaboration diagram for RBFfactory:



Protected Member Functions

- ConPtr makeCon (Neuron ∗neuron, double weight)
- ConContainerPtr makeConContainer ()
- virtual ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)=0
- PredictBehaviorPtr makePredictBehavior ()
- NeuronPtr makeNeuron (Handler Id)
- NeuronPtr makeNeuron (Handler Id, NeuronIteratorPtr neuronIteratorPtr, double totalAmountOfParameters)

- LayerPtr makeLayer ()
- LayerContainerPtr makeLayerContainer ()
- NeuralNetworkPtr makeNeuralNetwork (NeuralFactory &neuralFactory)
- NeuralCreatorPtr makeNeuralCreator ()

5.44.1 Detailed Description

class RBFfactory -

Definition at line 5 of file RBFfactory.h.

5.44.2 Member Function Documentation

5.44.2.1 virtual **ActivationFunctionPtr** RBFfactory::makeActivationFunction (**NeuronPtr** *neuronPtr*) `[protected, pure virtual]`

Implements NeuralFactory.

Implemented in RadialBasisFactory.

5.44.2.2 **ConPtr** RBFfactory::makeCon (**Neuron** ∗ *neuron,* double *weight*) `[protected]`

5.44.2.3 **ConContainerPtr** RBFfactory::makeConContainer ( ) `[protected, virtual]`

Implements NeuralFactory.

5.44.2.4 **LayerPtr** RBFfactory::makeLayer ( ) `[protected, virtual]`

Implements NeuralFactory.

5.44.2.5 **LayerContainerPtr** RBFfactory::makeLayerContainer ( ) `[protected, virtual]`

Implements NeuralFactory.

5.44.2.6 **NeuralCreatorPtr** RBFfactory::makeNeuralCreator ( ) `[protected, virtual]`

Implements NeuralFactory.

5.44.2.7 NeuralNetworkPtr RBFfactory::makeNeuralNetwork (NeuralFactory & *neuralFactory*) [protected, virtual]

Implements NeuralFactory.

5.44.2.8 NeuronPtr RBFfactory::makeNeuron (Handler *Id*) [protected, virtual]

Implements NeuralFactory.

5.44.2.9 NeuronPtr RBFfactory::makeNeuron (Handler *Id*, NeuronIteratorPtr *neuronIteratorPtr*, double *totalAmountOfParameters*) [protected, virtual]

Implements NeuralFactory.

5.44.2.10 PredictBehaviorPtr RBFfactory::makePredictBehavior ( ) [protected]

The documentation for this class was generated from the following file:

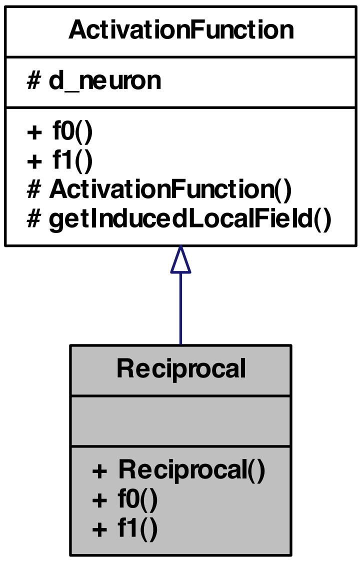
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RBFfacto

5.45 Reciprocal Class Reference

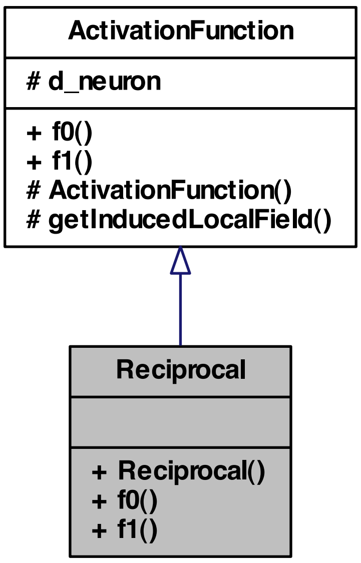
class Reciprocal -

`#include <Reciprocal.h>`

Inheritance diagram for Reciprocal:



Collaboration diagram for Reciprocal:



Public Member Functions

- Reciprocal (NeuronPtr neuronPtr)
- void f0 ()
- void f1 ()

5.45.1 Detailed Description

class Reciprocal -

Definition at line 5 of file Reciprocal.h.

5.45.2 Constructor & Destructor Documentation

5.45.2.1 Reciprocal::Reciprocal (**NeuronPtr** *neuronPtr*)

5.45.3 Member Function Documentation

5.45.3.1 void Reciprocal::f0 ( ) [virtual]

Implements ActivationFunction.

5.45.3.2 void Reciprocal::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

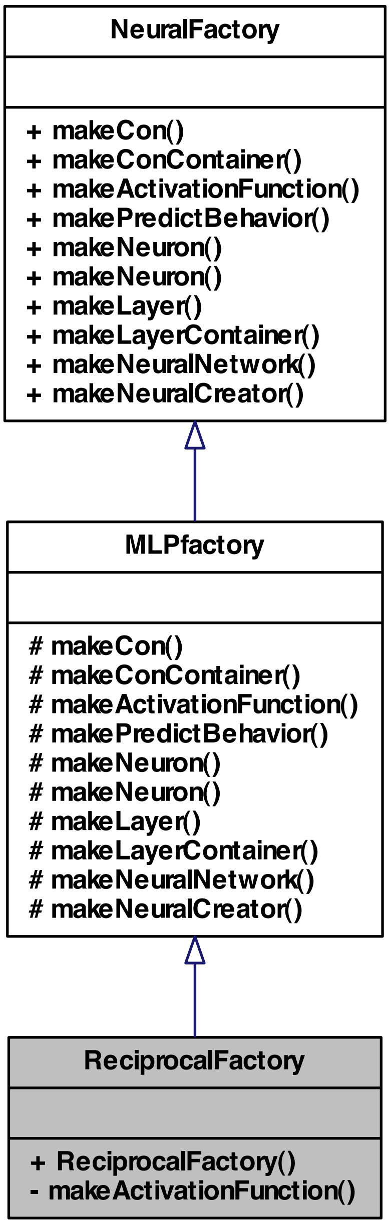
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.46 ReciprocalFactory Class Reference

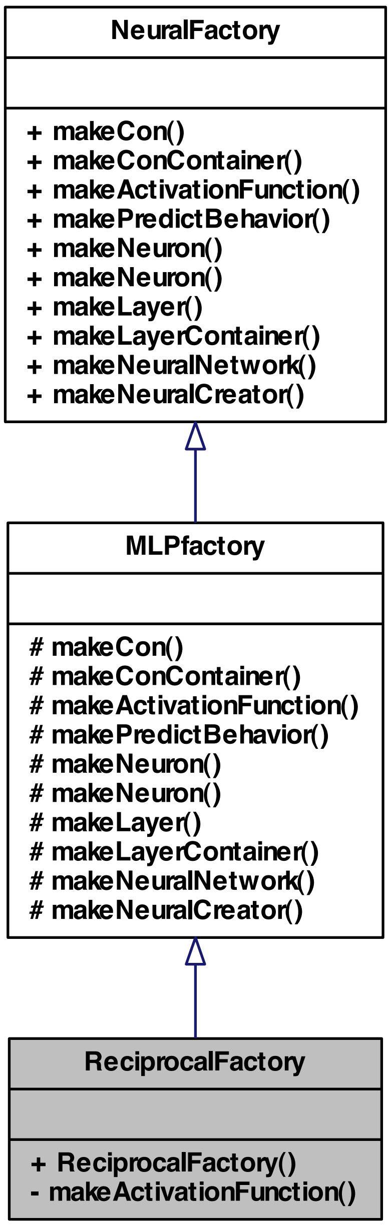
class ReciprocalFactory -

`#include <ReciprocalFactory.h>`

Inheritance diagram for ReciprocalFactory:



Collaboration diagram for ReciprocalFactory:



Public Member Functions

- ReciprocalFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.46.1 Detailed Description

class ReciprocalFactory -

Definition at line 5 of file ReciprocalFactory.h.

5.46.2 Constructor & Destructor Documentation

5.46.2.1 ReciprocalFactory::ReciprocalFactory ( )

5.46.3 Member Function Documentation

5.46.3.1 ActivationFunctionPtr ReciprocalFactory::makeActivationFunction (NeuronPtr *neuronPtr*) `[private, virtual]`

Implements MLPfactory.

The documentation for this class was generated from the following file:

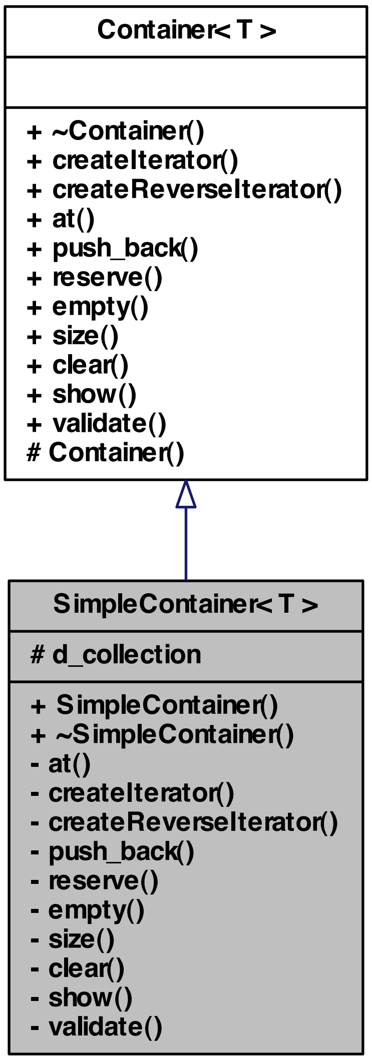
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Reciproca

5.47 SimpleContainer< T > Class Template Reference

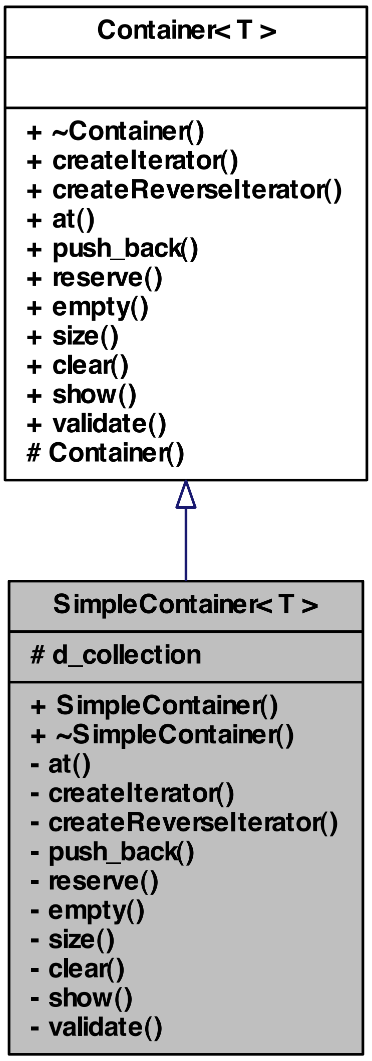
class SimpleContainer -

`#include <SimpleContainer.h>`

Inheritance diagram for SimpleContainer< T >:



Collaboration diagram for SimpleContainer< T >:



Public Member Functions

- SimpleContainer ()
- ∼SimpleContainer ()

Protected Attributes

- std::vector< T > d_collection

Private Member Functions

- T at (size_type element)
- boost::shared_ptr< Iterator< T > > createIterator ()
- boost::shared_ptr< Iterator< T > > createReverseIterator ()
- void push_back (T const &const_reference)
- void reserve (int n)
- bool empty ()
- size_type size ()
- void clear ()
- void show ()
- bool validate ()

Friends

- class SimpleContainerReverseIterator< T >
- class SimpleContainerIterator< T >

5.47.1 Detailed Description

template<typename T>class SimpleContainer< T >

class SimpleContainer -

Definition at line 6 of file SimpleContainer.h.

5.47.2 Constructor & Destructor Documentation

5.47.2.1 template<typename T > SimpleContainer< T >::SimpleContainer ( )

5.47.2.2 template<typename T > SimpleContainer< T >::~SimpleContainer ( )

5.47.3 Member Function Documentation

5.47.3.1 template<typename T > T SimpleContainer< T >::at (size_type *element*) `[private, virtual]`

Implements Container< T >.

5.47.3.2 template<typename T > void SimpleContainer< T >::clear ( ) [private, virtual]

Implements Container< T >.

5.47.3.3 template<typename T > boost::shared_ptr< Iterator<T> > SimpleContainer< T >::createIterator ( ) [private, virtual]

Implements Container< T >.

5.47.3.4 template<typename T > boost::shared_ptr< Iterator<T> > SimpleContainer< T >::createReverseIterator ( ) [private, virtual]

Implements Container< T >.

5.47.3.5 template<typename T > bool SimpleContainer< T >::empty ( ) [private, virtual]

Implements Container< T >.

5.47.3.6 template<typename T > void SimpleContainer< T >::push_back (T const & *const_reference*) [private, virtual]

Implements Container< T >.

5.47.3.7 template<typename T > void SimpleContainer< T >::reserve (int *n*) [private, virtual]

Implements Container< T >.

5.47.3.8 template<typename T > void SimpleContainer< T >::show ( ) [private, virtual]

Implements Container< T >.

5.47.3.9 template<typename T > size_type SimpleContainer< T >::size ( ) [private, virtual]

Implements Container< T >.

5.47.3.10 template<typename T > bool SimpleContainer< T >::validate ( ) [private, virtual]

Implements Container< T >.

5.47.4 Friends And Related Function Documentation

5.47.4.1 template<typename T > friend class SimpleContainerIterator< T > [friend]

Definition at line 13 of file SimpleContainer.h.

5.47.4.2 template<typename T > friend class SimpleContainerReverseIterator< T > [friend]

Definition at line 12 of file SimpleContainer.h.

5.47.5 Member Data Documentation

5.47.5.1 template<typename T > std::vector< T > SimpleContainer< T >::d_collection [protected]

Definition at line 9 of file SimpleContainer.h.

The documentation for this class was generated from the following file:

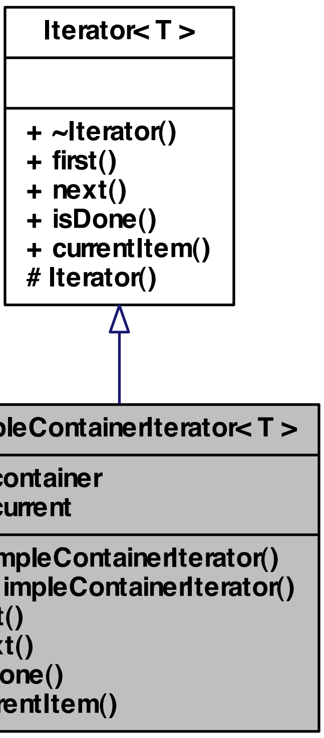
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.48 SimpleContainerIterator< T > Class Template Reference

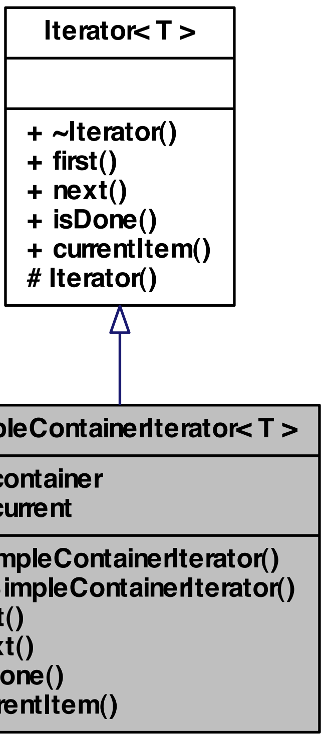
class SimpleContainerIterator -

```
#include <SimpleContainerIterator.h>
```

Inheritance diagram for SimpleContainerIterator< T >:



Collaboration diagram for SimpleContainerIterator< T >:



Public Member Functions

- SimpleContainerIterator ()
- ∼SimpleContainerIterator ()

Private Member Functions

- void first ()
- void next ()
- bool isDone ()
- T currentItem ()

Private Attributes

- Container< T > ∗ d_container
- int d_current

Friends

- class SimpleContainer< T >

5.48.1 Detailed Description

template<typename T>class SimpleContainerIterator< T >

class SimpleContainerIterator -

Definition at line 6 of file SimpleContainerIterator.h.

5.48.2 Constructor & Destructor Documentation

5.48.2.1 template<typename T > SimpleContainerIterator< T >::SimpleContainerIterator ( )

5.48.2.2 template<typename T > SimpleContainerIterator< T >::∼SimpleContainerIterator ( )

5.48.3 Member Function Documentation

5.48.3.1 template<typename T > T SimpleContainerIterator< T >::currentItem ( ) `[private, virtual]`

Implements Iterator< T >.

5.48.3.2 template<typename T > void SimpleContainerIterator< T >::first ( ) `[private, virtual]`

Implements Iterator< T >.

5.48.3.3 template<typename T > bool SimpleContainerIterator< T >::isDone ( ) `[private, virtual]`

Implements Iterator< T >.

5.48.3.4 template$<$typename T $>$ void SimpleContainerIterator$<$ T $>$::next ( ) `[private, virtual]`

Implements Iterator$<$ T $>$.

5.48.4 Friends And Related Function Documentation

5.48.4.1 template$<$typename T $>$ friend class SimpleContainer$<$ T $>$ `[friend]`

Definition at line 13 of file SimpleContainerIterator.h.

5.48.5 Member Data Documentation

5.48.5.1 template$<$typename T $>$ Container$<$T$>$$*$ SimpleContainerIterator$<$ T $>$::d_container `[private]`

Definition at line 9 of file SimpleContainerIterator.h.

5.48.5.2 template$<$typename T $>$ int SimpleContainerIterator$<$ T $>$::d_current `[private]`

Definition at line 10 of file SimpleContainerIterator.h.

The documentation for this class was generated from the following file:

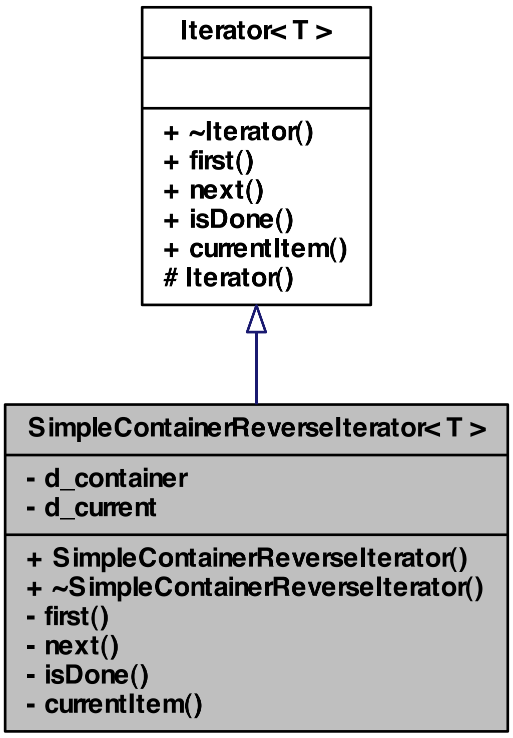
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.49 SimpleContainerReverseIterator$<$ T $>$ Class Template Reference

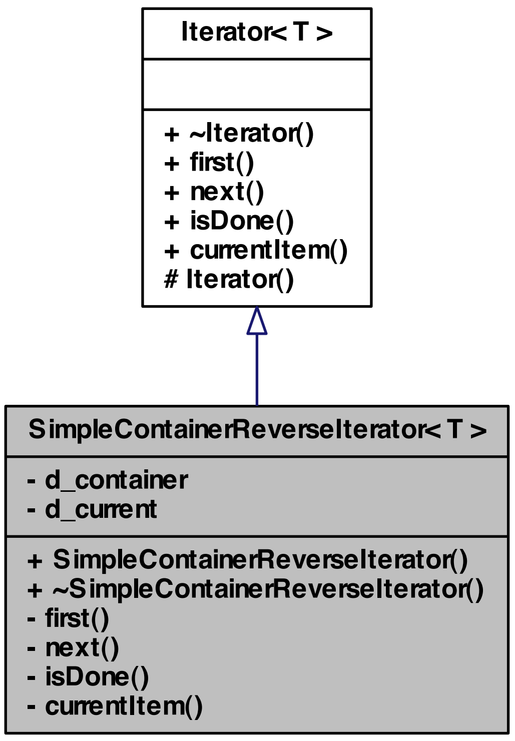
class SimpleContainerReverseIterator -

`#include <SimpleContainerReverseIterator.h>`

Inheritance diagram for SimpleContainerReverseIterator< T >:



Collaboration diagram for SimpleContainerReverseIterator< T >:



Public Member Functions

- SimpleContainerReverseIterator ()
- ∼SimpleContainerReverseIterator ()

Private Member Functions

- void first ()
- void next ()
- bool isDone ()
- T currentItem ()

Private Attributes

- Container< T > ∗ d_container
- int d_current

Friends

- class SimpleContainer< T >

5.49.1 Detailed Description

template<typename T>class SimpleContainerReverseIterator< T >

class SimpleContainerReverseIterator -

Definition at line 6 of file SimpleContainerReverseIterator.h.

5.49.2 Constructor & Destructor Documentation

5.49.2.1 template<typename T > SimpleContainerReverseIterator< T >::SimpleContainerReverseIterator ( )

5.49.2.2 template<typename T > SimpleContainerReverseIterator< T >::~SimpleContainerReverseIterator ( )

5.49.3 Member Function Documentation

5.49.3.1 template<typename T > T SimpleContainerReverseIterator< T >::currentItem ( ) `[private, virtual]`

Implements Iterator< T >.

5.49.3.2 template<typename T > void SimpleContainerReverseIterator< T >::first ( ) `[private, virtual]`

Implements Iterator< T >.

5.49.3.3 template<typename T > bool SimpleContainerReverseIterator< T >::isDone ( ) `[private, virtual]`

Implements Iterator< T >.

5.49.3.4 template<typename T > void SimpleContainerReverseIterator< T >::next ( ) [private, virtual]

Implements Iterator< T >.

5.49.4 Friends And Related Function Documentation

5.49.4.1 template<typename T > friend class SimpleContainer< T > [friend]

Definition at line 13 of file SimpleContainerReverseIterator.h.

5.49.5 Member Data Documentation

5.49.5.1 template<typename T > Container<T>* SimpleContainerReverseIterator< T >::d_container [private]

Definition at line 9 of file SimpleContainerReverseIterator.h.

5.49.5.2 template<typename T > int SimpleContainerReverseIterator< T >::d_current [private]

Definition at line 10 of file SimpleContainerReverseIterator.h.

The documentation for this class was generated from the following file:

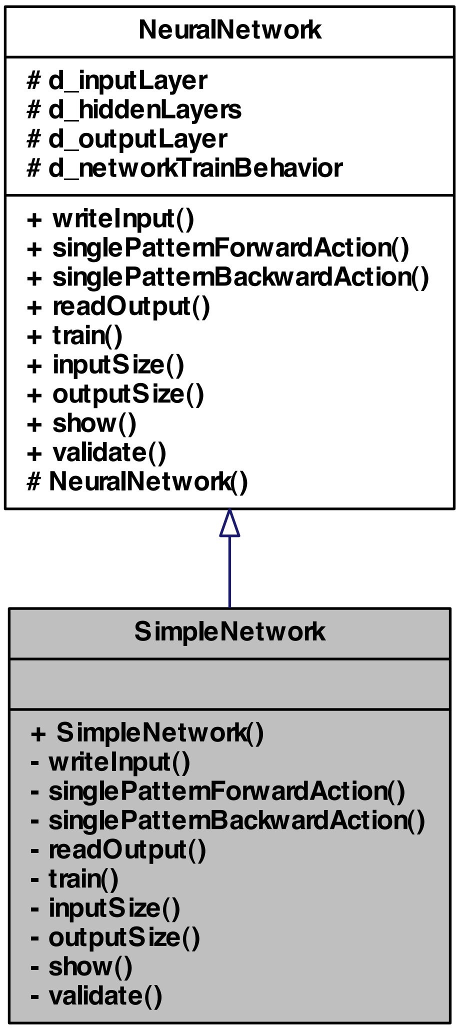
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.50 SimpleNetwork Class Reference

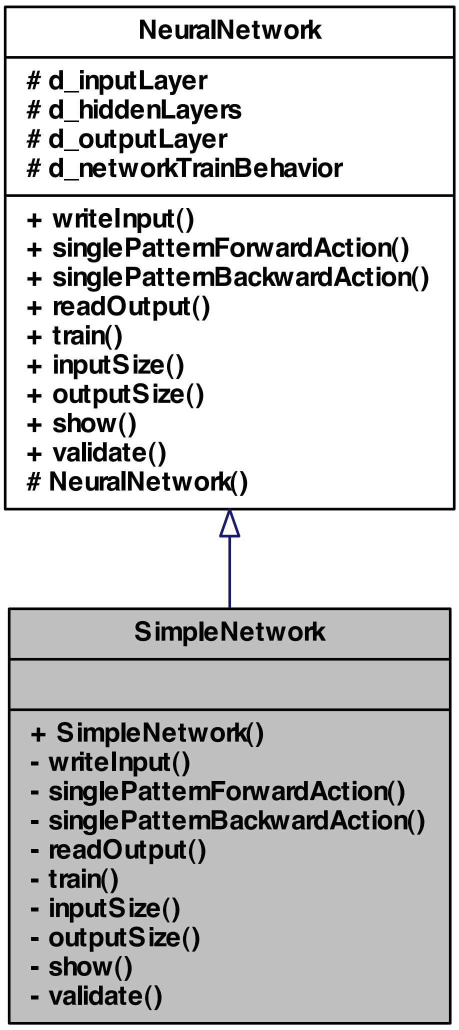
class SimpleNetwork -

`#include <SimpleNetwork.h>`

Inheritance diagram for SimpleNetwork:



Collaboration diagram for SimpleNetwork:



Public Member Functions

- SimpleNetwork (NeuralFactory &neuralFactory)

Private Member Functions

- void writeInput (std::vector< double >::iterator &iterator)
- void singlePatternForwardAction ()
- void singlePatternBackwardAction ()
- void readOutput (std::vector< double >::iterator &iterator)
- Rcpp::List train (Rcpp::List parameterList)
- size_type inputSize ()
- size_type outputSize ()
- void show ()
- bool validate ()

5.50.1 Detailed Description

class SimpleNetwork -

Definition at line 5 of file SimpleNetwork.h.

5.50.2 Constructor & Destructor Documentation

5.50.2.1 SimpleNetwork::SimpleNetwork (**NeuralFactory &** *neuralFactory*)

Definition at line 16 of file SimpleNetwork.cpp.

```
                                                        :
  NeuralNetwork(neuralFactory)
{

}
```

5.50.3 Member Function Documentation

5.50.3.1 size_type SimpleNetwork::inputSize ( ) [private, virtual]

Implements NeuralNetwork.

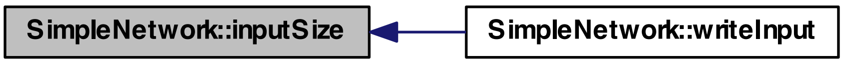
Definition at line 108 of file SimpleNetwork.cpp.

References NeuralNetwork::d_inputLayer.

Referenced by writeInput().

```
{
  return d_inputLayer->size();
}
```

Here is the caller graph for this function:



5.50.3.2 size_type SimpleNetwork::outputSize ( ) [private, virtual]

Implements NeuralNetwork.

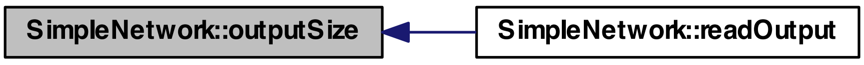
Definition at line 114 of file SimpleNetwork.cpp.

References NeuralNetwork::d_outputLayer.

Referenced by readOutput().

```
{
  return d_outputLayer->size();
}
```

Here is the caller graph for this function:



5.50.3.3 void SimpleNetwork::readOutput (std::vector< double >::iterator & *iterator*) [private, virtual]

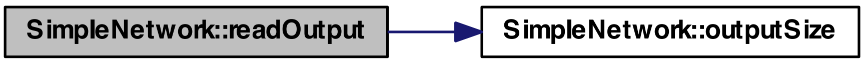
Implements NeuralNetwork.

Definition at line 88 of file SimpleNetwork.cpp.

References NeuralNetwork::d_outputLayer, outputSize(), and size_type.

```
{
  size_type nOutputs(outputSize());
  for (size_type i = 0; i < nOutputs; i++)
    {
      *iterator++ = d_outputLayer->at(i)->getOutput();
    }
}
```

Here is the call graph for this function:



5.50.3.4 void SimpleNetwork::show ( ) [private, virtual]

Implements NeuralNetwork.

Definition at line 120 of file SimpleNetwork.cpp.

References NeuralNetwork::d_hiddenLayers, NeuralNetwork::d_inputLayer, and NeuralNetwork::d_-outputLayer.

```
{
  Rprintf("\n\n========================================================\n");
  Rprintf("         Input Layer");
  Rprintf("\n=========================================================");
  d_inputLayer->show();

  Rprintf("\n\n========================================================\n");
  Rprintf("         Hidden Layers");
  Rprintf("\n=========================================================");
  d_hiddenLayers->show();

  Rprintf("\n\n========================================================\n");
  Rprintf("         Output Layer");
  Rprintf("\n=========================================================");
  d_outputLayer->show();
  Rprintf("\n=========================================================\n");

}
```

5.50.3.5 void SimpleNetwork::singlePatternBackwardAction ( ) [private, virtual]

Implements NeuralNetwork.

Definition at line 64 of file SimpleNetwork.cpp.

References NeuralNetwork::d_hiddenLayers, and NeuralNetwork::d_outputLayer.

```
{
  // Output Layers
  boost::shared_ptr < Iterator<NeuronPtr> > neuronIterator(d_outputLayer->createR
      everseIterator());
  for (neuronIterator->first(); !neuronIterator->isDone(); neuronIterator->next()
      )
    {
      neuronIterator->currentItem()->singlePatternBackwardAction();
    }

  // Hidden Layers
  boost::shared_ptr < Iterator<LayerPtr> > layerIterator(d_hiddenLayers->createRe
      verseIterator());
  for (layerIterator->first(); !layerIterator->isDone(); layerIterator->next())
    {
      boost::shared_ptr < Iterator<NeuronPtr> > neuronIterator( layerIterator->cu
      rrentItem()->createReverseIterator());
      for (neuronIterator->first(); !neuronIterator->isDone(); neuronIterator->ne
      xt())
        {
          neuronIterator->currentItem()->singlePatternBackwardAction();
        }
    }
}
```

5.50.3.6 void SimpleNetwork::singlePatternForwardAction ( ) [private, virtual]

Implements NeuralNetwork.

Definition at line 35 of file SimpleNetwork.cpp.

References NeuralNetwork::d_hiddenLayers, and NeuralNetwork::d_outputLayer.

```
{

  // Hidden Layers
  boost::shared_ptr < Iterator<LayerPtr> > layerIterator(
      d_hiddenLayers->createIterator());

  for (layerIterator->first(); !layerIterator->isDone(); layerIterator->next())
    {
      boost::shared_ptr < Iterator<NeuronPtr> > neuronIterator(
          layerIterator->currentItem()->createIterator());
      for (neuronIterator->first(); !neuronIterator->isDone(); neuronIterator->ne
      xt())
        {
          neuronIterator->currentItem()->singlePatternForwardAction();
        }
    }

  // Output Layers
  boost::shared_ptr < Iterator<NeuronPtr> > neuronIterator(
      d_outputLayer->createIterator());
  for (neuronIterator->first(); !neuronIterator->isDone(); neuronIterator->next()
      )
    {
      neuronIterator->currentItem()->singlePatternForwardAction();
    }
}
```

5.50.3.7 Rcpp::List SimpleNetwork::train (Rcpp::List *parameterList*) [private, virtual]

Implements NeuralNetwork.

Definition at line 98 of file SimpleNetwork.cpp.

References NeuralNetwork::d_networkTrainBehavior.

```
{
  // TODO check train behavior and change it if need be
  // TODO check cost function  and change it if need be

  return d_networkTrainBehavior->train(parameterList);
}
```

5.50.3.8 bool SimpleNetwork::validate ( ) [private, virtual]

Implements NeuralNetwork.

Definition at line 141 of file SimpleNetwork.cpp.

References NeuralNetwork::d_hiddenLayers, NeuralNetwork::d_inputLayer, and NeuralNetwork::d_-outputLayer.

```
{
  d_inputLayer->validate();
  d_hiddenLayers->validate();
  d_outputLayer->validate();
  return true;
}
```

5.50.3.9 void SimpleNetwork::writeInput (std::vector< double >::iterator & *iterator*) [private, virtual]

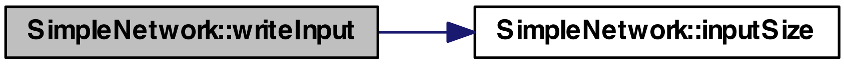
Implements NeuralNetwork.

Definition at line 23 of file SimpleNetwork.cpp.

References NeuralNetwork::d_inputLayer, inputSize(), and size_type.

```
{
  size_type nInputs(inputSize());
  for (size_type i = 0; i < nInputs; i++)
    {
      d_inputLayer->at(i)->setOutput(*iterator++);
    }
}
```

Here is the call graph for this function:



The documentation for this class was generated from the following files:

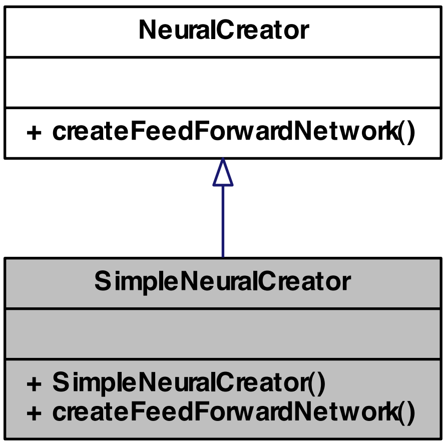
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNetw

5.51 SimpleNeuralCreator Class Reference

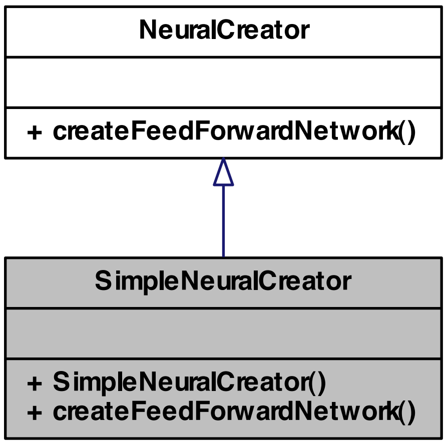
class SimpleNeuralCreator -

`#include <SimpleNeuralCreator.h>`

Inheritance diagram for SimpleNeuralCreator:



Collaboration diagram for SimpleNeuralCreator:



Public Member Functions

- SimpleNeuralCreator ()
- NeuralNetworkPtr createFeedForwardNetwork (std::vector< int > numberOfNeurons, NeuralFactory &hiddenLayersFactory, NeuralFactory &outputLayerFactory)

5.51.1 Detailed Description

class SimpleNeuralCreator -

Definition at line 5 of file SimpleNeuralCreator.h.

5.51.2 Constructor & Destructor Documentation

5.51.2.1 SimpleNeuralCreator::SimpleNeuralCreator ( )

Definition at line 19 of file SimpleNeuralCreator.cpp.

```
{
}
```

5.51.3 Member Function Documentation

5.51.3.1 NeuralNetworkPtr SimpleNeuralCreator::createFeedForwardNetwork (std::vector< int > *numberOfNeurons*, NeuralFactory & *hiddenLayersFactory*, NeuralFactory & *outputLayerFactory*) [virtual]

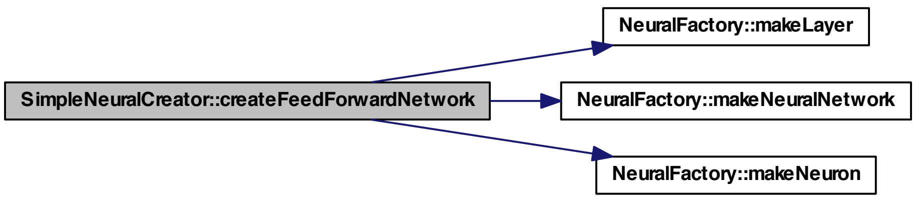
Implements NeuralCreator.

Definition at line 24 of file SimpleNeuralCreator.cpp.

References NeuralFactory::makeLayer(), NeuralFactory::makeNeuralNetwork(), and NeuralFactory::makeNeuron().

```
{
  NeuralNetworkPtr neuralNetworkPtr(outputLayerFactory.makeNeuralNetwork(outputLa
      yerFactory));
  NeuronPtr neuronPtr;

  if (numberOfNeurons.size() <= 2)
    {
      throw std::range_error(
          "[C++ CreateFeedForwardNetwork::validate]: Error, number of layers lowe
      r than 3.");
    }

  Handler neuronId = 1;

  //===========================================================
  // Calculation of the total amount of parameters
  //===========================================================
  int totalAmountOfParameters = 0;

  std::vector<int>::iterator itr1 = numberOfNeurons.begin();
  int totalNumberOfNeurons = *itr1;
  for (std::vector<int>::iterator itr2 = 1+itr1; itr2 != numberOfNeurons.end(); +
      +itr2, ++itr1)
    {
      totalNumberOfNeurons += *itr2;
      totalAmountOfParameters += (*itr2) * (*itr1); //integer multiplication
    }
  totalAmountOfParameters += totalNumberOfNeurons;


  //===========================================================
  // Neuron insertion
  //===========================================================

  //Input Layer
  for (int i = 0; i < numberOfNeurons.at(0); ++i)
    {
      neuronPtr = outputLayerFactory.makeNeuron(neuronId++); // It's irrelevant w
      hether to use outputLayerFactory o hiddenLayersFactory as inputFactory
      neuralNetworkPtr->d_inputLayer->push_back(neuronPtr);
    }


  // Hidden layers

  for (int i = 0; i < numberOfNeurons.at(1); ++i)
     {
       neuronPtr = hiddenLayersFactory.makeNeuron(neuronId++, neuralNetworkPtr->d
      _inputLayer->createIterator(), totalAmountOfParameters);
       neuralNetworkPtr->d_hiddenLayers->at(0)->push_back(neuronPtr);
     }

  unsigned int layerItr = 2 ;
  for (; layerItr < (-1 + numberOfNeurons.size()); ++layerItr)
    {
      neuralNetworkPtr->d_hiddenLayers->push_back( hiddenLayersFactory.makeLayer(
      ) ) ;
      for (int i = 0; i < numberOfNeurons.at(layerItr); ++i)
        {
          neuronPtr = hiddenLayersFactory.makeNeuron(neuronId++, neuralNetworkPtr
      ->d_hiddenLayers->at(layerItr-2)->createIterator(), totalAmountOfParameters);
          neuralNetworkPtr->d_hiddenLayers->at(layerItr-1)->push_back(neuronPtr);

        }
    }


  //Output Layer
  for (int i = 0; i < numberOfNeurons.back(); ++i)
    {
      neuronPtr = outputLayerFactory.makeNeuron(neuronId++, neuralNetworkPtr->d_h
      iddenLayers->at(layerItr-2)->createIterator() , totalAmountOfParameters);
      neuralNetworkPtr->d_outputLayer->push_back(neuronPtr);
    }

  return neuralNetworkPtr;
}
```

Here is the call graph for this function:


SimpleNeuralCreator::createFeedForwardNetwork
NeuralFactory::makeLayer
NeuralFactory::makeNeuralNetwork
NeuralFactory::makeNeuron

The documentation for this class was generated from the following files:

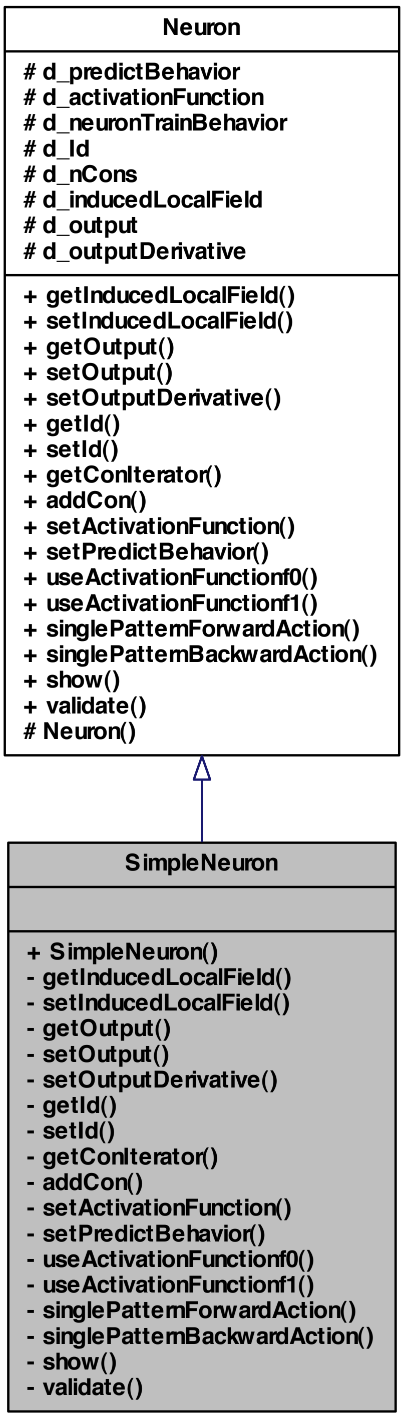
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNe
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuralCreator.cp

5.52 SimpleNeuron Class Reference

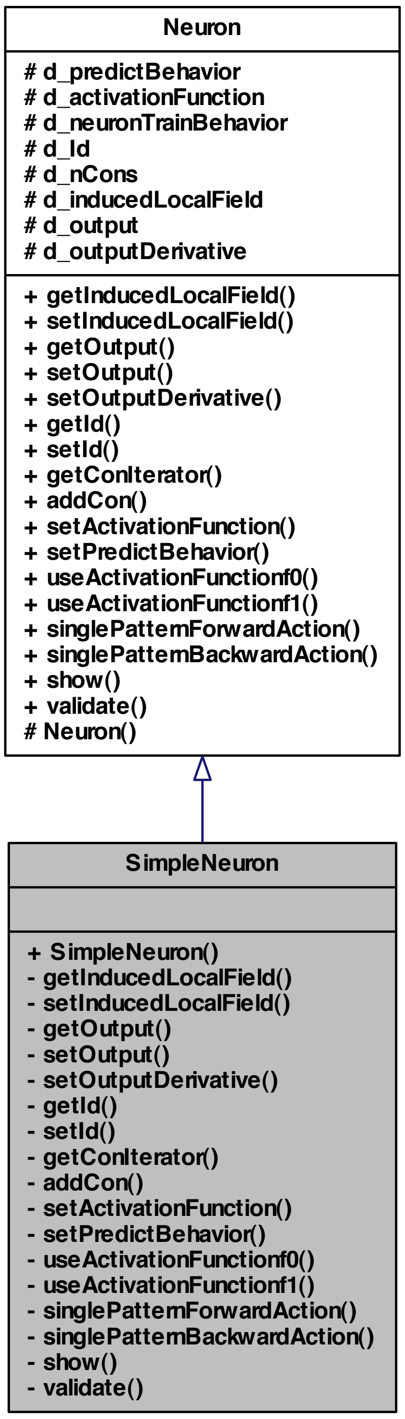
class SimpleNeuron -

```
#include <SimpleNeuron.h>
```

Inheritance diagram for SimpleNeuron:



Collaboration diagram for SimpleNeuron:



Public Member Functions

- SimpleNeuron (NeuralFactory &neuralFactory)

Private Member Functions

- double getInducedLocalField ()
- void setInducedLocalField (double inducedLocalField)
- double getOutput ()
- void setOutput (double output)
- void setOutputDerivative (double outputDerivative)
- Handler getId ()
- void setId (Handler Id)
- ConIteratorPtr getConIterator ()
- void addCon (ConPtr conPtr)
- void setActivationFunction (ActivationFunctionPtr activationFunctionPtr)
- void setPredictBehavior (PredictBehaviorPtr predictBehaviorPtr)
- double useActivationFunctionf0 ()
- double useActivationFunctionf1 ()
- void singlePatternForwardAction ()
- void singlePatternBackwardAction ()
- void show ()
- bool validate ()

5.52.1 Detailed Description

class SimpleNeuron -

Definition at line 5 of file SimpleNeuron.h.

5.52.2 Constructor & Destructor Documentation

5.52.2.1 SimpleNeuron::SimpleNeuron (**NeuralFactory** & *neuralFactory*)

Definition at line 18 of file SimpleNeuron.cpp.

```
                                                                  :
  Neuron(neuralFactory)
{
}
```

5.52.3 Member Function Documentation

5.52.3.1 void SimpleNeuron::addCon (ConPtr *conPtr*) [private, virtual]

Implements Neuron.

Definition at line 74 of file SimpleNeuron.cpp.

References Neuron::d_nCons.

```
{
  d_nCons->push_back(conPtr);
}
```

5.52.3.2 ConIteratorPtr SimpleNeuron::getConIterator ( ) [private, virtual]

Implements Neuron.

Definition at line 68 of file SimpleNeuron.cpp.

References Neuron::d_nCons.

```
{
  return d_nCons->createIterator();
}
```

5.52.3.3 Handler SimpleNeuron::getId ( ) [private, virtual]

Implements Neuron.

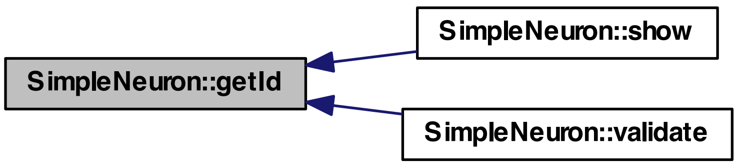
Definition at line 56 of file SimpleNeuron.cpp.

References Neuron::d_Id.

Referenced by show(), and validate().

```
{
  return d_Id;
}
```

Here is the caller graph for this function:



5.52.3.4 double SimpleNeuron::getInducedLocalField ( ) [private, virtual]

Implements Neuron.

Definition at line 24 of file SimpleNeuron.cpp.

References Neuron::d_inducedLocalField.

```
{
  return d_inducedLocalField;
}
```

5.52.3.5 double SimpleNeuron::getOutput ( ) [private, virtual]

Implements Neuron.

Definition at line 36 of file SimpleNeuron.cpp.

References Neuron::d_output.

```
{
  return d_output;
}
```

5.52.3.6 void SimpleNeuron::setActivationFunction (ActivationFunctionPtr *activationFunctionPtr*) [private, virtual]

Implements Neuron.

Definition at line 80 of file SimpleNeuron.cpp.

References Neuron::d_activationFunction.

```
{
  d_activationFunction = activationFunctionPtr;
}
```

5.52.3.7 void SimpleNeuron::setId (Handler *Id*) [private, virtual]

Implements Neuron.

Definition at line 62 of file SimpleNeuron.cpp.

References Neuron::d_Id.

```
{
  d_Id = Id;
}
```

5.52.3.8 void SimpleNeuron::setInducedLocalField (double *inducedLocalField*) [private, virtual]

Implements Neuron.

Definition at line 30 of file SimpleNeuron.cpp.

References Neuron::d_inducedLocalField.

```
{
  d_inducedLocalField = inducedLocalField;
}
```

5.52.3.9 void SimpleNeuron::setOutput (double *output*) [private, virtual]

Implements Neuron.

Definition at line 42 of file SimpleNeuron.cpp.

References Neuron::d_output.

```
{
  d_output = output;
}
```

5.52.3.10 void SimpleNeuron::setOutputDerivative (double *outputDerivative*) [private, virtual]

Implements Neuron.

Definition at line 50 of file SimpleNeuron.cpp.

References Neuron::d_outputDerivative.

```
{
  d_outputDerivative = outputDerivative;
}
```

5.52.3.11 void SimpleNeuron::setPredictBehavior (PredictBehaviorPtr *predictBehaviorPtr*) [private, virtual]

Implements Neuron.

Definition at line 86 of file SimpleNeuron.cpp.

References Neuron::d_predictBehavior.

```
{
  d_predictBehavior = predictBehaviorPtr;
}
```

5.52.3.12 void SimpleNeuron::show ( ) [private, virtual]

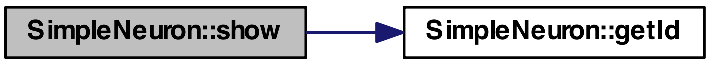
Implements Neuron.

Definition at line 122 of file SimpleNeuron.cpp.

References Neuron::d_nCons, Neuron::d_output, Neuron::d_predictBehavior, and getId().

```
{
  if (d_nCons->size() == 0)
    {

      int id = getId();
      Rprintf("\n\n-----------------------------------");
      if (id == NA_INTEGER)
        {
          Rprintf("\n Id: NA, Invalid neuron Id");
        }
      else
        {
          Rprintf("\n Id: %d", id);
        }
      Rprintf("\n-----------------------------------");
      Rprintf("\n output: %lf", d_output);
      Rprintf("\n-----------------------------------");
    }
  else
    {
      int id = getId();
      Rprintf("\n\n-----------------------------------");
      if (id == NA_INTEGER)
        {
          Rprintf("\n Id: NA, Invalid neuron Id");
        }
      else
        {
          Rprintf("\n Id: %d", id);
        }
      Rprintf("\n-----------------------------------");
      d_predictBehavior->show();

      Rprintf("\n output: %lf", d_output);
      Rprintf("\n-----------------------------------");
      d_nCons->show();
      Rprintf("\n-----------------------------------");
    }
}
```

Here is the call graph for this function:



5.52.3.13 void SimpleNeuron::singlePatternBackwardAction ( ) [private, virtual]

Implements Neuron.

Definition at line 114 of file SimpleNeuron.cpp.

References Neuron::d_neuronTrainBehavior.

```
{
  d_neuronTrainBehavior->singlePatternBackwardAction();
}
```

5.52.3.14 void SimpleNeuron::singlePatternForwardAction ( ) [private, virtual]

Implements Neuron.

Definition at line 108 of file SimpleNeuron.cpp.

References Neuron::d_predictBehavior.

```
{
  d_predictBehavior->singlePatternForwardAction();
}
```

5.52.3.15 double SimpleNeuron::useActivationFunctionf0 ( ) [private, virtual]

Implements Neuron.

Definition at line 92 of file SimpleNeuron.cpp.

References Neuron::d_activationFunction.

```
{
  return d_activationFunction->f0();
}
```

5.52.3.16 double SimpleNeuron::useActivationFunctionf1 ( ) [private, virtual]

Implements Neuron.

Definition at line 100 of file SimpleNeuron.cpp.

References Neuron::d_activationFunction.

```
{
  return d_activationFunction->f1();
}
```

5.52.3.17 bool SimpleNeuron::validate ( ) [private, virtual]

Implements Neuron.

Definition at line 164 of file SimpleNeuron.cpp.

References getId().

```
{
  BEGIN_RCPP
  if (getId() == NA_INTEGER ) throw std::range_error("[C++ SimpleNeuron::validate
      ]: Error, Id is NA.");
  // nCons.validate();
  return (TRUE);
END_RCPP}
```

Here is the call graph for this function:

SimpleNeuron::validate
SimpleNeuron::getId

The documentation for this class was generated from the following files:

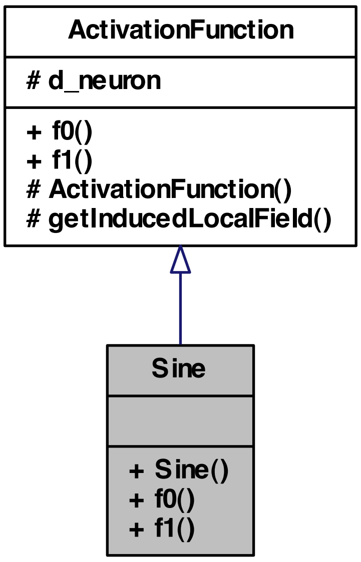
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNe
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuron.cpp

5.53 Sine Class Reference

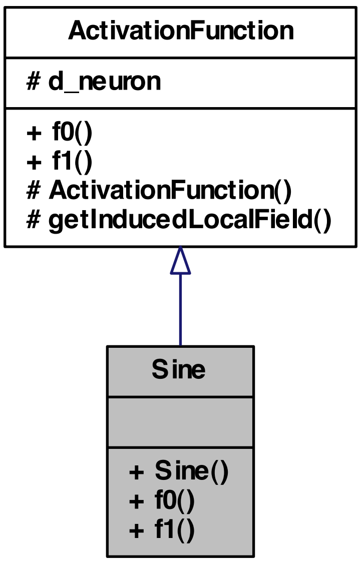
class Sine -

```
#include <Sine.h>
```

Inheritance diagram for Sine:



Collaboration diagram for Sine:



Public Member Functions

- Sine (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.53.1 Detailed Description

class Sine -

Definition at line 5 of file Sine.h.

5.53.2 Constructor & Destructor Documentation

5.53.2.1 Sine::Sine (**NeuronPtr** *neuronPtr*)

5.53.3 Member Function Documentation

5.53.3.1 double Sine::f0 ( ) [virtual]

Implements ActivationFunction.

5.53.3.2 double Sine::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

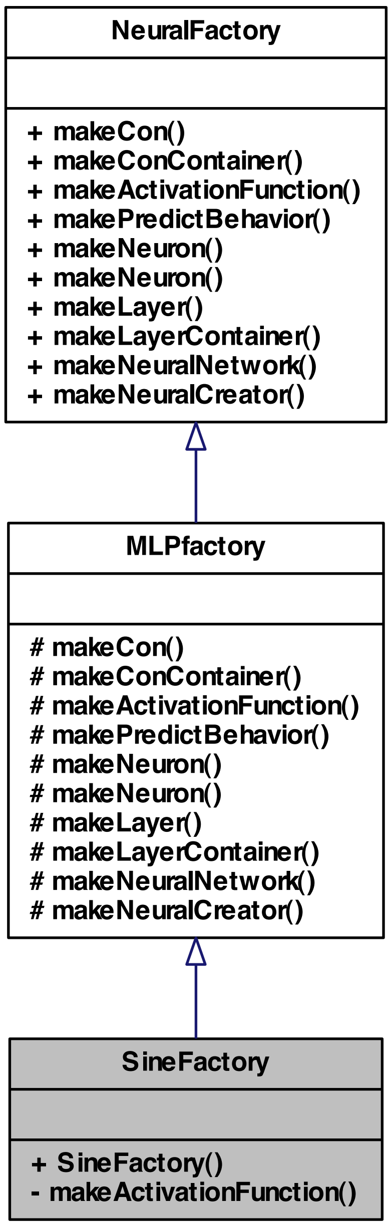
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.54 SineFactory Class Reference

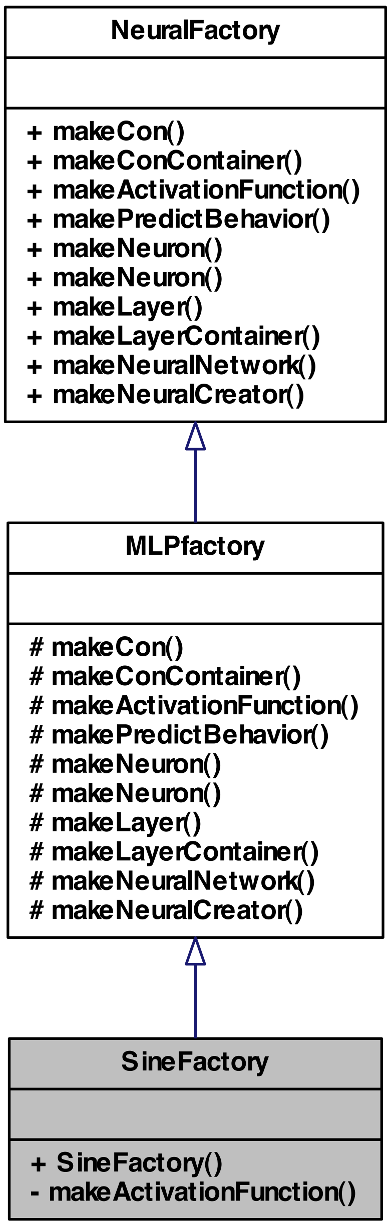
class SineFactory -

`#include <SineFactory.h>`

Inheritance diagram for SineFactory:



Collaboration diagram for SineFactory:



Public Member Functions

- SineFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.54.1 Detailed Description

class SineFactory -

Definition at line 5 of file SineFactory.h.

5.54.2 Constructor & Destructor Documentation

5.54.2.1 SineFactory::SineFactory ( )

5.54.3 Member Function Documentation

5.54.3.1 ActivationFunctionPtr SineFactory::makeActivationFunction (NeuronPtr *neuronPtr*) [private, virtual]

Implements MLPfactory.

The documentation for this class was generated from the following file:

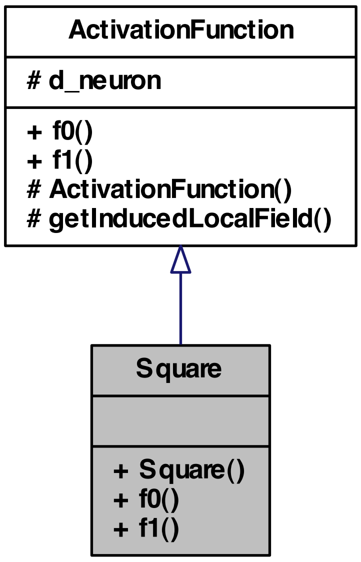
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SineFacto

5.55 Square Class Reference

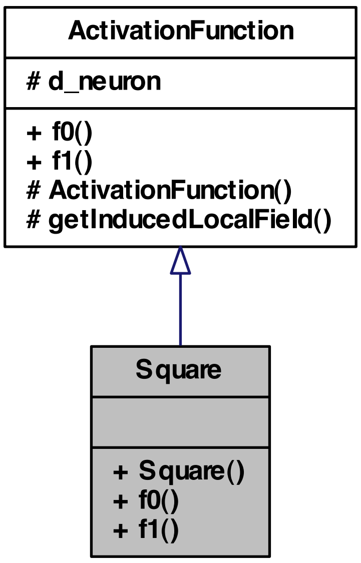
class Square -

`#include <Square.h>`

Inheritance diagram for Square:



Collaboration diagram for Square:



Public Member Functions

- Square (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.55.1 Detailed Description

class Square -

Definition at line 5 of file Square.h.

5.55.2 Constructor & Destructor Documentation

5.55.2.1 Square::Square (NeuronPtr *neuronPtr*)

5.55.3 Member Function Documentation

5.55.3.1 double Square::f0 ( ) [virtual]

Implements ActivationFunction.

5.55.3.2 double Square::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

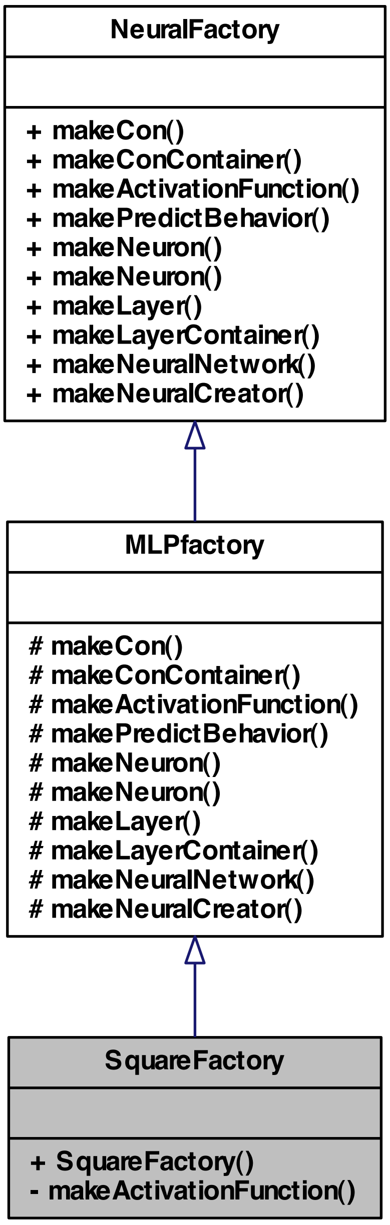
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

5.56 SquareFactory Class Reference

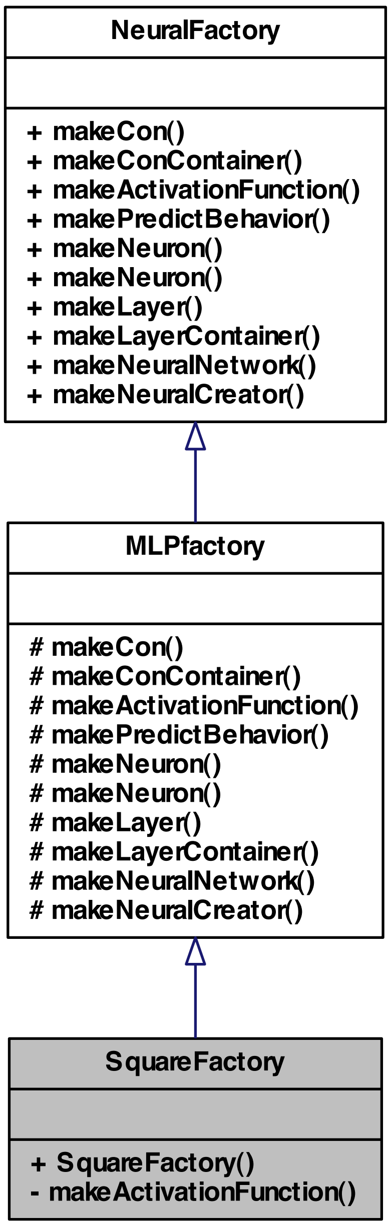
class SquareFactory -

`#include <SquareFactory.h>`

Inheritance diagram for SquareFactory:



Collaboration diagram for SquareFactory:



Public Member Functions

- SquareFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.56.1 Detailed Description

class SquareFactory -

Definition at line 5 of file SquareFactory.h.

5.56.2 Constructor & Destructor Documentation

5.56.2.1 SquareFactory::SquareFactory ( )

5.56.3 Member Function Documentation

5.56.3.1 ActivationFunctionPtr SquareFactory::makeActivationFunction (NeuronPtr *neuronPtr*) `[private, virtual]`

Implements MLPfactory.

The documentation for this class was generated from the following file:

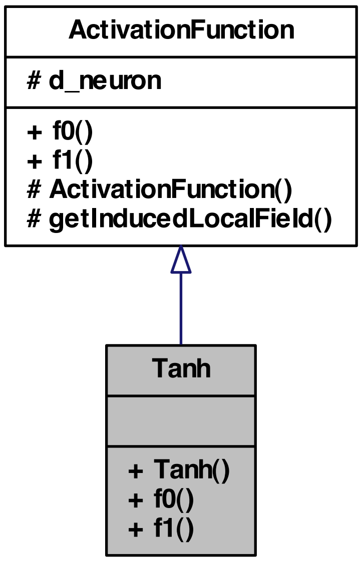
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SquareFa

5.57 Tanh Class Reference

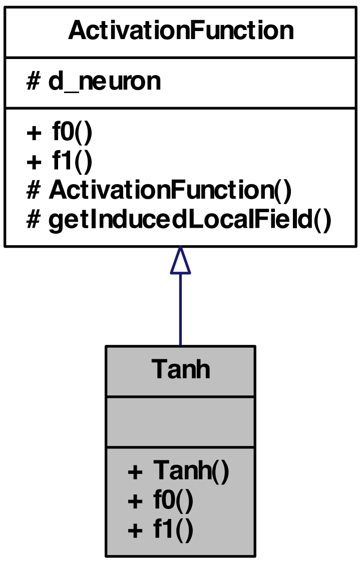
class Tanh -

`#include <Tanh.h>`

Inheritance diagram for Tanh:



Collaboration diagram for Tanh:



Public Member Functions

- Tanh (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.57.1 Detailed Description

class Tanh -

Definition at line 5 of file Tanh.h.

5.57.2 Constructor & Destructor Documentation

5.57.2.1 Tanh::Tanh (**NeuronPtr** *neuronPtr*)

Definition at line 15 of file Tanh.cpp.

```
                        : ActivationFunction(neuronPtr) {
}
```

5.57.3 Member Function Documentation

5.57.3.1 double Tanh::f0 ( ) [virtual]

Implements ActivationFunction.

Definition at line 19 of file Tanh.cpp.

References ActivationFunction::getInducedLocalField().

```
                {
  return tanh(getInducedLocalField());

}
```

Here is the call graph for this function:

Tanh::f0
ActivationFunction::getInducedLocalField

5.57.3.2 double Tanh::f1 ( ) [virtual]

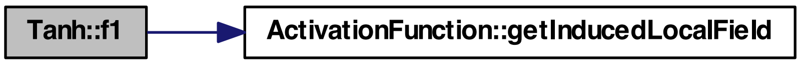
Implements ActivationFunction.

Definition at line 24 of file Tanh.cpp.

References ActivationFunction::getInducedLocalField().

```
                {
  double tanhx ( tanh(getInducedLocalField()) );
  return (1-tanhx*tanhx) ; // TODO consider speeding up the calculation by using
      caller.d_output instead of tanhx
}
```

Here is the call graph for this function:



The documentation for this class was generated from the following files:

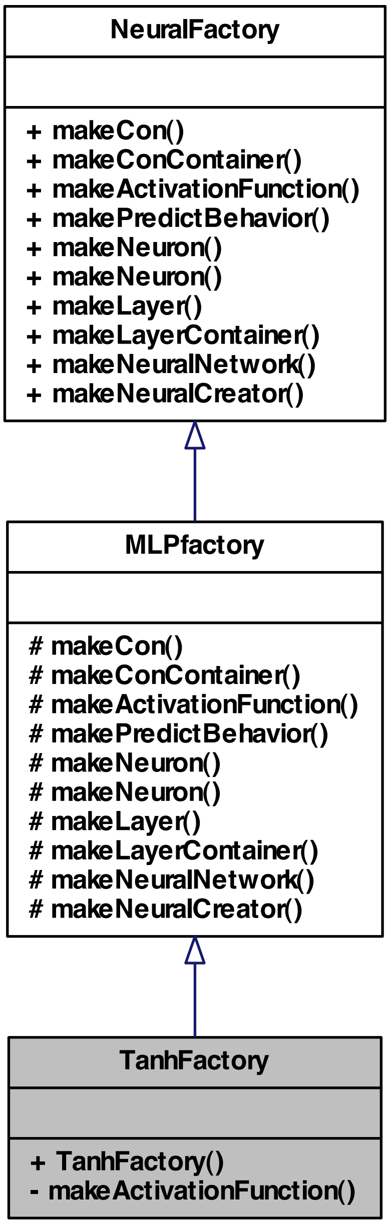
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Tanh.h
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Tanh.cpp

5.58 TanhFactory Class Reference

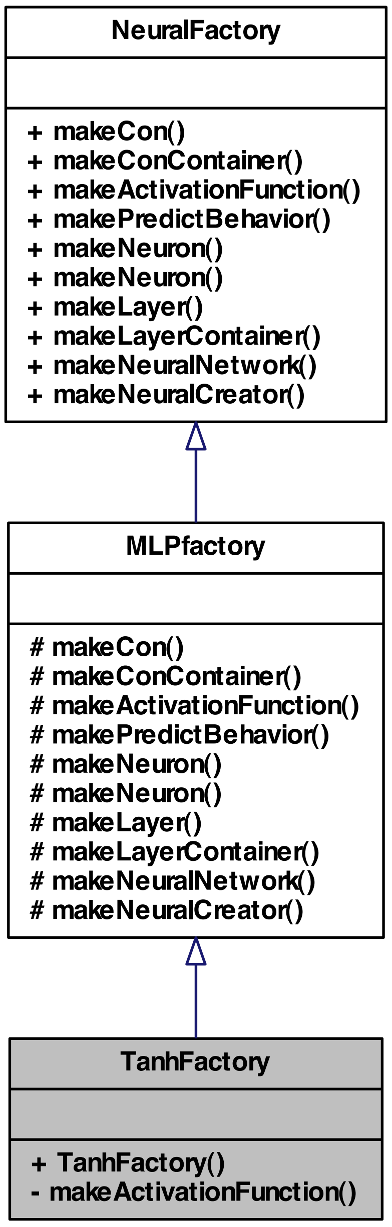
class TanhFactory -

```
#include <TanhFactory.h>
```

Inheritance diagram for TanhFactory:



Collaboration diagram for TanhFactory:



Public Member Functions

- TanhFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.58.1 Detailed Description

class TanhFactory -

Definition at line 5 of file TanhFactory.h.

5.58.2 Constructor & Destructor Documentation

5.58.2.1 TanhFactory::TanhFactory ( )

Definition at line 17 of file TanhFactory.cpp.

```
{
}
```

5.58.3 Member Function Documentation

5.58.3.1 ActivationFunctionPtr TanhFactory::makeActivationFunction (NeuronPtr *neuronPtr*) [private, virtual]

Implements MLPfactory.

Definition at line 22 of file TanhFactory.cpp.

```
{
  ActivationFunctionPtr activationFunctionPtr(new Tanh(neuronPtr));
  return activationFunctionPtr;
}
```

The documentation for this class was generated from the following files:

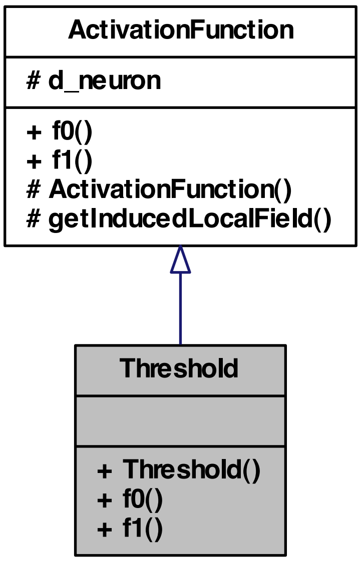
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/TanhFactor

5.59 Threshold Class Reference

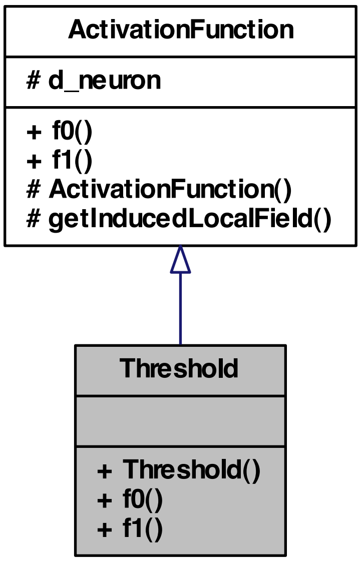
class Threshold -

`#include <Threshold.h>`

Inheritance diagram for Threshold:



Collaboration diagram for Threshold:



Public Member Functions

- Threshold (NeuronPtr neuronPtr)
- double f0 ()
- double f1 ()

5.59.1 Detailed Description

class Threshold -

Definition at line 5 of file Threshold.h.

5.59.2 Constructor & Destructor Documentation

5.59.2.1 Threshold::Threshold (NeuronPtr *neuronPtr*)

5.59.3 Member Function Documentation

5.59.3.1 double Threshold::f0 ( ) [virtual]

Implements ActivationFunction.

5.59.3.2 double Threshold::f1 ( ) [virtual]

Implements ActivationFunction.

The documentation for this class was generated from the following file:

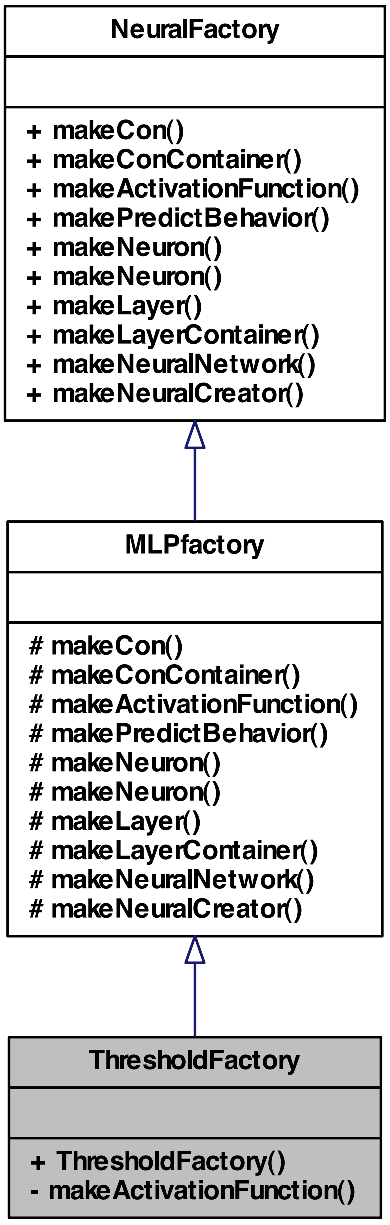
- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Threshol

5.60 ThresholdFactory Class Reference

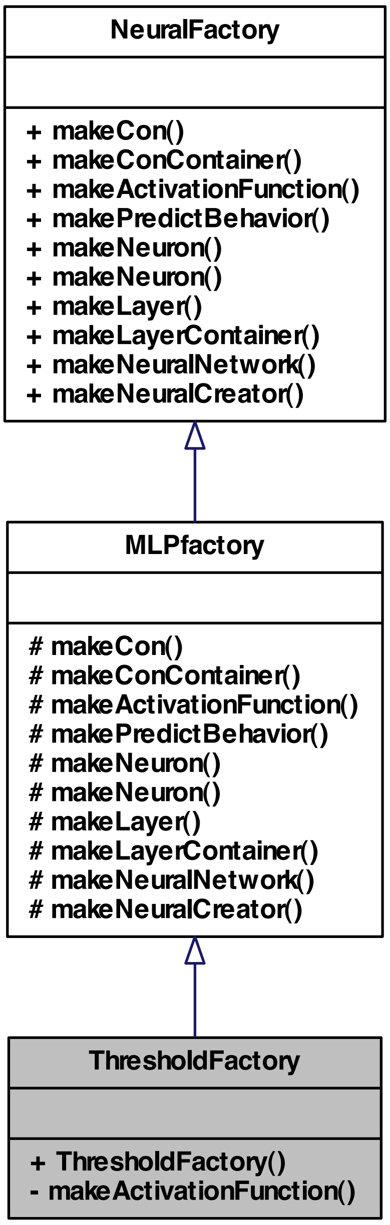
class ThresholdFactory -

```
#include <ThresholdFactory.h>
```

Inheritance diagram for ThresholdFactory:



Collaboration diagram for ThresholdFactory:



Public Member Functions

- ThresholdFactory ()

Private Member Functions

- ActivationFunctionPtr makeActivationFunction (NeuronPtr neuronPtr)

5.60.1 Detailed Description

class ThresholdFactory -

Definition at line 5 of file ThresholdFactory.h.

5.60.2 Constructor & Destructor Documentation

5.60.2.1 ThresholdFactory::ThresholdFactory ( )

5.60.3 Member Function Documentation

5.60.3.1 ActivationFunctionPtr ThresholdFactory::makeActivationFunction (NeuronPtr *neuronPtr*) `[private, virtual]`

Implements MLPfactory.

The documentation for this class was generated from the following file:

- /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeade

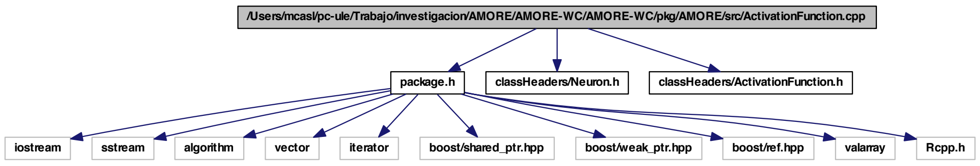
Chapter 6

File Documentation

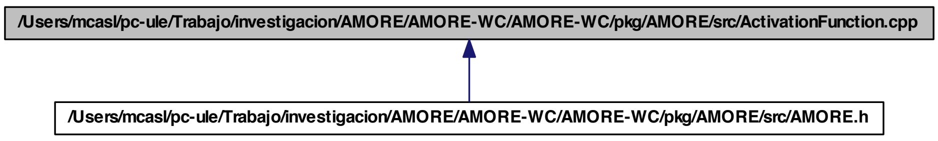
6.1 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/ActivationFunction.cpp File Reference

```
#include "package.h"
#include "classHeaders/Neuron.h"
#include "classHeaders/ActivationFunction.h"
```

Include dependency graph for ActivationFunction.cpp:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/ActivationFunction.cpp
package.h
classHeaders/Neuron.h
classHeaders/ActivationFunction.h
iostream
sstream
algorithm
vector
iterator
boost/shared_ptr.hpp
boost/weak_ptr.hpp
boost/ref.hpp
valarray
Rcpp.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/ActivationFunction.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

6.2 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/ADAPTgdNetworkTrainBehavior.cpp File Reference

6.3 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h File Reference

```
#include <iostream>
#include <sstream>
#include <algorithm>
#include <vector>
#include <iterator>
#include <boost/shared_ptr.hpp>
#include <boost/weak_ptr.hpp>
#include <boost/ref.hpp>
#include <valarray>
#include <Rcpp.h>
#include "classHeaders/Connection.h"
#include "classHeaders/ActivationFunction.h"
#include "classHeaders/Tanh.h"
#include "classHeaders/Identity.h"
#include "classHeaders/PredictBehavior.h"
#include "classHeaders/MLPBehavior.h"
#include "classHeaders/NeuronTrainBehavior.h"
#include "classHeaders/NetworkTrainBehavior.h"
#include "classHeaders/Neuron.h"
#include "classHeaders/SimpleNeuron.h"
#include "classHeaders/NeuralFactory.h"
#include "classHeaders/MLPfactory.h"
#include "classHeaders/TanhFactory.h"
#include "classHeaders/IdentityFactory.h"
#include "classHeaders/NeuralNetwork.h"
#include "classHeaders/SimpleNetwork.h"
#include "classHeaders/NeuralCreator.h"
```

```
#include "classHeaders/SimpleNeuralCreator.h"
#include "classHeaders/NetworkRinterface.h"
#include "classHeaders/Container.h"
#include "classHeaders/SimpleContainer.h"
#include "classHeaders/Iterator.h"
#include "classHeaders/SimpleContainerIterator.h"
#include "classHeaders/SimpleContainerReverseIterator.h"
#include "Connection.cpp"
#include "ActivationFunction.cpp"
#include "Tanh.cpp"
#include "Identity.cpp"
#include "PredictBehavior.cpp"
#include "MLPbehavior.cpp"
#include "Neuron.cpp"
#include "SimpleNeuron.cpp"
#include "MLPfactory.cpp"
#include "TanhFactory.cpp"
#include "IdentityFactory.cpp"
#include "NeuralNetwork.cpp"
#include "SimpleNetwork.cpp"
#include "SimpleNeuralCreator.cpp"
#include "NetworkRinterface.cpp"
#include "RcppModules.cpp"
```

Defines

- #define size_type unsigned int

Typedefs

- typedef int Handler
- typedef boost::reference_wrapper< PredictBehavior > ActivationFunctionRef
- typedef boost::reference_wrapper< PredictBehavior > PredictBehaviorRef
- typedef boost::reference_wrapper< TrainingBehavior > TrainingBehaviorRef
- typedef boost::reference_wrapper< Neuron > NeuronRef
- typedef boost::shared_ptr< ActivationFunction > ActivationFunctionPtr
- typedef boost::shared_ptr< PredictBehavior > PredictBehaviorPtr

- typedef boost::shared_ptr< NetworkTrainBehavior > NetworkTrainBehaviorPtr
- typedef boost::shared_ptr< NeuronTrainBehavior > NeuronTrainBehaviorPtr
- typedef boost::shared_ptr< Neuron > NeuronPtr
- typedef boost::shared_ptr< Con > ConPtr
- typedef boost::shared_ptr< NeuralNetwork > NeuralNetworkPtr
- typedef boost::shared_ptr< Iterator< NeuronPtr > > NeuronIteratorPtr
- typedef boost::shared_ptr< Iterator< ConPtr > > ConIteratorPtr
- typedef boost::shared_ptr< Container< NeuronPtr > > LayerPtr
- typedef boost::shared_ptr< Container< LayerPtr > > LayerContainerPtr
- typedef boost::shared_ptr< Container< ConPtr > > ConContainerPtr
- typedef boost::shared_ptr< NeuralFactory > NeuralFactoryPtr
- typedef boost::shared_ptr< NeuralCreator > NeuralCreatorPtr
- typedef boost::weak_ptr< NeuralNetwork > NeuralNetworkWeakPtr
- typedef boost::weak_ptr< Neuron > NeuronWeakPtr

6.3.1 Define Documentation

6.3.1.1 #define size_type unsigned int

Definition at line 86 of file AMORE.h.

Referenced by SimpleNetwork::readOutput(), and SimpleNetwork::writeInput().

6.3.2 Typedef Documentation

6.3.2.1 typedef boost::shared_ptr<ActivationFunction> ActivationFunctionPtr

Definition at line 98 of file AMORE.h.

6.3.2.2 typedef boost::reference_wrapper<PredictBehavior> ActivationFunctionRef

Definition at line 92 of file AMORE.h.

6.3.2.3 typedef boost::shared_ptr< Container<ConPtr> > ConContainerPtr

Definition at line 112 of file AMORE.h.

6.3.2.4 typedef boost::shared_ptr< Iterator<ConPtr> > ConIteratorPtr

Definition at line 108 of file AMORE.h.

6.3.2.5 typedef boost::shared_ptr<Con> ConPtr

Definition at line 103 of file AMORE.h.

6.3.2.6 typedef int Handler

Definition at line 89 of file AMORE.h.

6.3.2.7 typedef boost::shared_ptr< Container< LayerPtr > > LayerContainerPtr

Definition at line 111 of file AMORE.h.

6.3.2.8 typedef boost::shared_ptr< Container<NeuronPtr > > LayerPtr

Definition at line 110 of file AMORE.h.

6.3.2.9 typedef boost::shared_ptr<NetworkTrainBehavior> NetworkTrainBehaviorPtr

Definition at line 100 of file AMORE.h.

6.3.2.10 typedef boost::shared_ptr< NeuralCreator > NeuralCreatorPtr

Definition at line 115 of file AMORE.h.

6.3.2.11 typedef boost::shared_ptr< NeuralFactory > NeuralFactoryPtr

Definition at line 114 of file AMORE.h.

6.3.2.12 typedef boost::shared_ptr<NeuralNetwork> NeuralNetworkPtr

Definition at line 104 of file AMORE.h.

6.3.2.13 typedef boost::weak_ptr<NeuralNetwork> NeuralNetworkWeakPtr

Definition at line 117 of file AMORE.h.

6.3.2.14 typedef boost::shared_ptr< Iterator<NeuronPtr> > NeuronIteratorPtr

Definition at line 107 of file AMORE.h.

6.3.2.15 typedef boost::shared_ptr<Neuron> NeuronPtr

Definition at line 102 of file AMORE.h.

6.3.2.16 typedef boost::reference_wrapper<Neuron> NeuronRef

Definition at line 95 of file AMORE.h.

6.3.2.17 typedef boost::shared_ptr<NeuronTrainBehavior> NeuronTrainBehaviorPtr

Definition at line 101 of file AMORE.h.

6.3.2.18 typedef boost::weak_ptr<Neuron> NeuronWeakPtr

Definition at line 118 of file AMORE.h.

6.3.2.19 typedef boost::shared_ptr<PredictBehavior> PredictBehaviorPtr

Definition at line 99 of file AMORE.h.

6.3.2.20 typedef boost::reference_wrapper<PredictBehavior> PredictBehaviorRef

Definition at line 93 of file AMORE.h.

6.3.2.21 typedef boost::reference_wrapper<TrainingBehavior> TrainingBehaviorRef

Definition at line 94 of file AMORE.h.

6.4 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ActivationFunction.h File Reference

This graph shows which files directly or indirectly include this file:

Classes

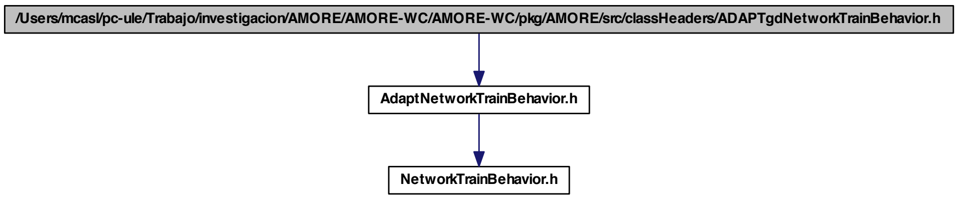
- class ActivationFunction

  class ActivationFunction -

6.5 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdNetworkTrainBehavior.h File Reference

```
#include "AdaptNetworkTrainBehavior.h"
```

Include dependency graph for ADAPTgdNetworkTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdNetworkTrainBehavior.h
AdaptNetworkTrainBehavior.h
NetworkTrainBehavior.h

Classes

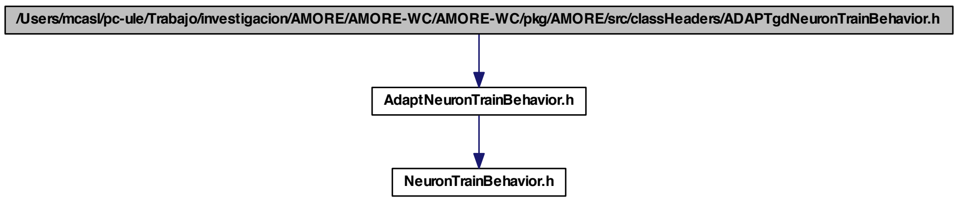
- class ADAPTgdNetworkTrainBehavior

  class ADAPTgdNetworkTrainBehavior -

6.6 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdNeuronTrainBehavior.h File Reference

```
#include "AdaptNeuronTrainBehavior.h"
```

Include dependency graph for ADAPTgdNeuronTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdNeuronTrainBehavior.h
AdaptNeuronTrainBehavior.h
NeuronTrainBehavior.h

Classes

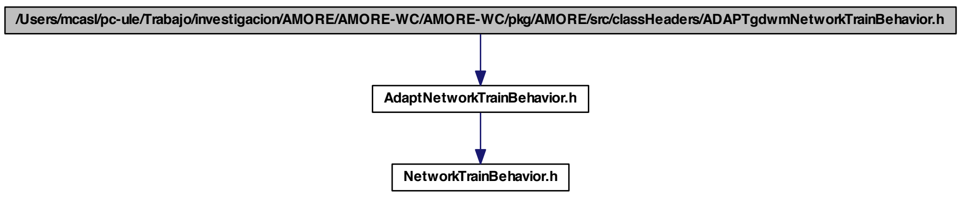
- class ADAPTgdNeuronTrainBehavior

    class ADAPTgdNeuronTrainBehavior -

6.7 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdwmNetworkTrainBehavior.h File Reference

```
#include "AdaptNetworkTrainBehavior.h"
```

Include dependency graph for ADAPTgdwmNetworkTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdwmNetworkTrainBehavior.h
AdaptNetworkTrainBehavior.h
NetworkTrainBehavior.h

Classes

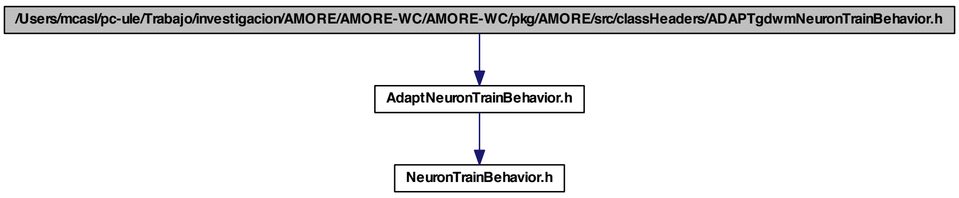
- class ADAPTgdwmNetworkTrainBehavior

    class ADAPTgdwmNetworkTrainBehavior -

6.8 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdwmNeuronTrainBehavior.h File Reference

```
#include "AdaptNeuronTrainBehavior.h"
```

Include dependency graph for ADAPTgdwmNeuronTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdwmNeuronTrainBehavior.h
AdaptNeuronTrainBehavior.h
NeuronTrainBehavior.h

Classes

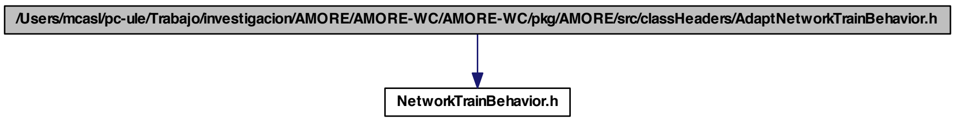
- class ADAPTgdwmNeuronTrainBehavior

  class ADAPTgdwmNeuronTrainBehavior -

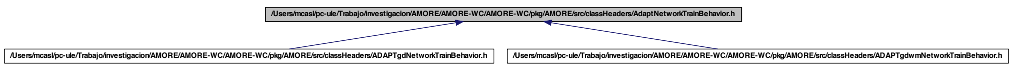
6.9 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/AdaptNetworkTrainBehavior.h File Reference

```
#include "NetworkTrainBehavior.h"
```

Include dependency graph for AdaptNetworkTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/AdaptNetworkTrainBehavior.h
NetworkTrainBehavior.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/AdaptNetworkTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdNetworkTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdwmNetworkTrainBehavior.h

Classes

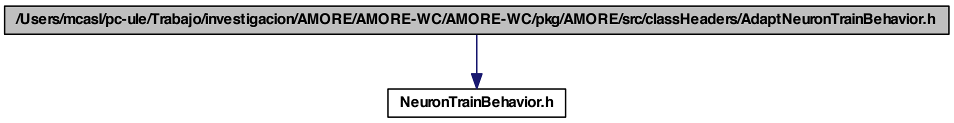
- class AdaptNetworkTrainBehavior

  class AdaptNetworkTrainBehavior -

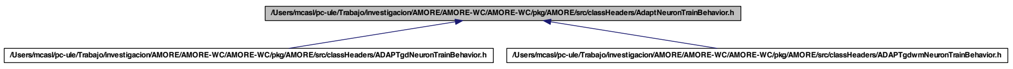
6.10 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/AdaptNeuronTrainBehavior.h File Reference

```
#include "NeuronTrainBehavior.h"
```

Include dependency graph for AdaptNeuronTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/AdaptNeuronTrainBehavior.h
NeuronTrainBehavior.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/AdaptNeuronTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdNeuronTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdwmNeuronTrainBehavior.h

Classes

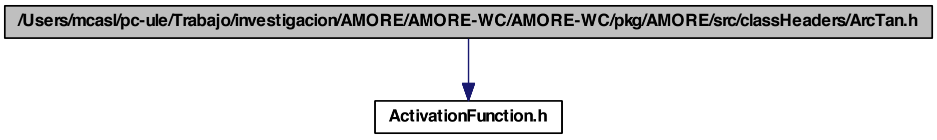
- class AdaptNeuronTrainBehavior

  class AdaptNeuronTrainBehavior -

6.11 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ArcTan.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for ArcTan.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ArcTan.h
ActivationFunction.h

Classes

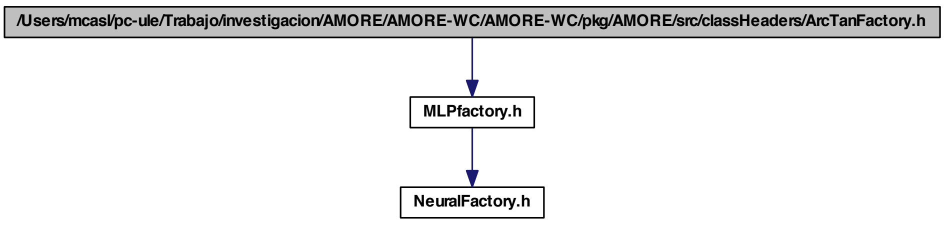
- class ArcTan

  class ArcTan -

6.12 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ArcTanFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for ArcTanFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ArcTanFactory.h
MLPfactory.h
NeuralFactory.h

Classes

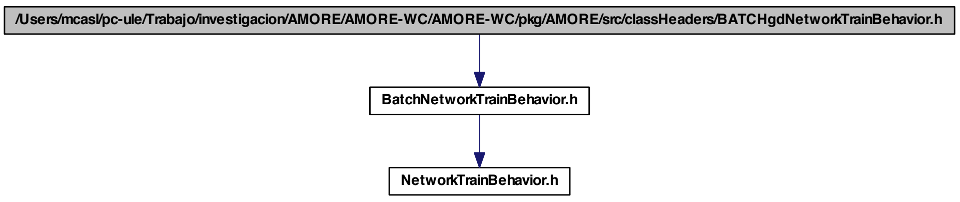
- class ArcTanFactory

  class ArcTanFactory -

6.13 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdNetworkTrainBehavior.h File Reference

```
#include "BatchNetworkTrainBehavior.h"
```

Include dependency graph for BATCHgdNetworkTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdNetworkTrainBehavior.h
BatchNetworkTrainBehavior.h
NetworkTrainBehavior.h

Classes

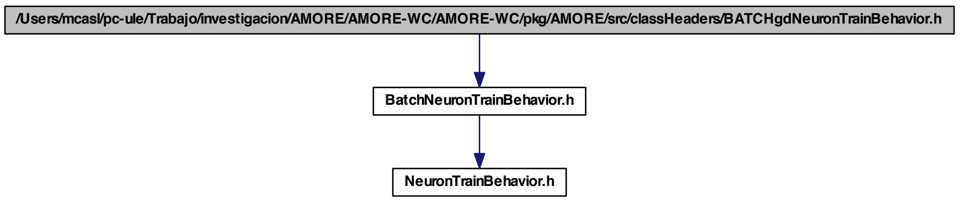
- class BATCHgdNetworkTrainBehavior

  class BATCHgdNetworkTrainBehavior -

6.14 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdNeuronTrainBehavior.h File Reference

```
#include "BatchNeuronTrainBehavior.h"
```

Include dependency graph for BATCHgdNeuronTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdNeuronTrainBehavior.h
BatchNeuronTrainBehavior.h
NeuronTrainBehavior.h

Classes

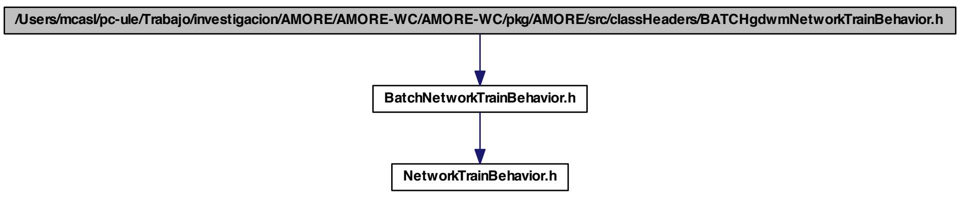
- class BATCHgdNeuronTrainBehavior

  class BATCHgdNeuronTrainBehavior -

6.15 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdwmNetworkTrainBehavior.h File Reference

```
#include "BatchNetworkTrainBehavior.h"
```

Include dependency graph for BATCHgdwmNetworkTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdwmNetworkTrainBehavior.h
BatchNetworkTrainBehavior.h
NetworkTrainBehavior.h

Classes

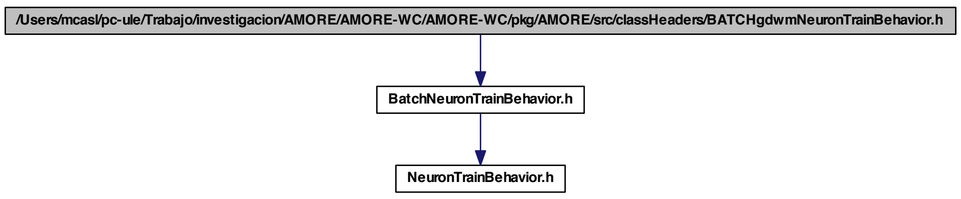
- class BATCHgdwmNetworkTrainBehavior

  class BATCHgdwmNetworkTrainBehavior -

6.16 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdwmNeuronTrainBehavior.h File Reference

```
#include "BatchNeuronTrainBehavior.h"
```

Include dependency graph for BATCHgdwmNeuronTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdwmNeuronTrainBehavior.h
BatchNeuronTrainBehavior.h
NeuronTrainBehavior.h

Classes

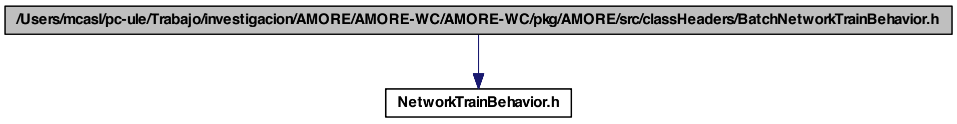
- class BATCHgdwmNeuronTrainBehavior

    class BATCHgdwmNeuronTrainBehavior -

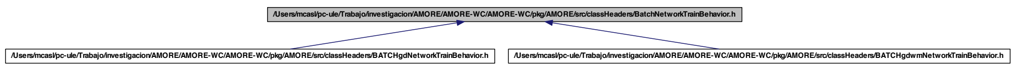
6.17 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BatchNetworkTrainBehavior.h File Reference

`#include "NetworkTrainBehavior.h"`

Include dependency graph for BatchNetworkTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BatchNetworkTrainBehavior.h
NetworkTrainBehavior.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BatchNetworkTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdNetworkTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdwmNetworkTrainBehavior.h

Classes

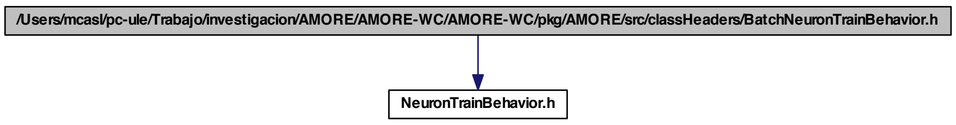
- class BatchNetworkTrainBehavior

  class BatchNetworkTrainBehavior -

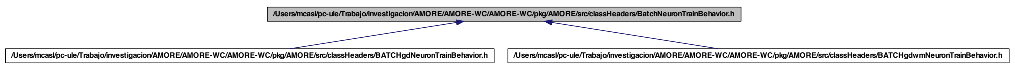
6.18 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BatchNeuronTrainBehavior.h File Reference

```
#include "NeuronTrainBehavior.h"
```

Include dependency graph for BatchNeuronTrainBehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BatchNeuronTrainBehavior.h
NeuronTrainBehavior.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BatchNeuronTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdNeuronTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdwmNeuronTrainBehavior.h

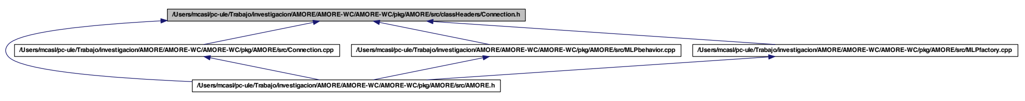
Classes

- class BatchNeuronTrainBehavior

  class BatchNeuronTrainBehavior -

6.19 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Connection.h File Reference

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Connection.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Connection.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPbehavior.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

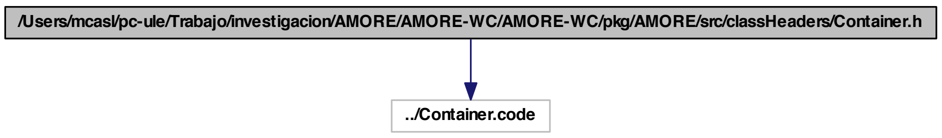
- class Con

  class Con -

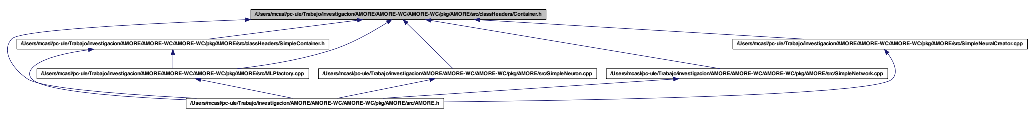
6.20 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Container.h File Reference

```
#include "../Container.code"
```

Include dependency graph for Container.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Container.h
../Container.code

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Container.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleContainer.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuralCreator.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuron.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNetwork.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

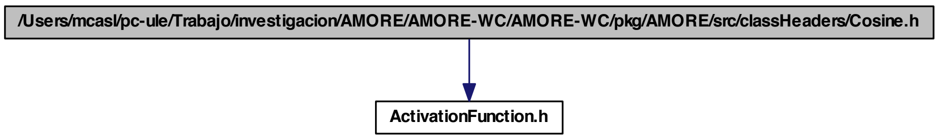
- class Container< T >

class Container -

6.21 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Cosine.h File Reference

`#include "ActivationFunction.h"`

Include dependency graph for Cosine.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Cosine.h
ActivationFunction.h

Classes

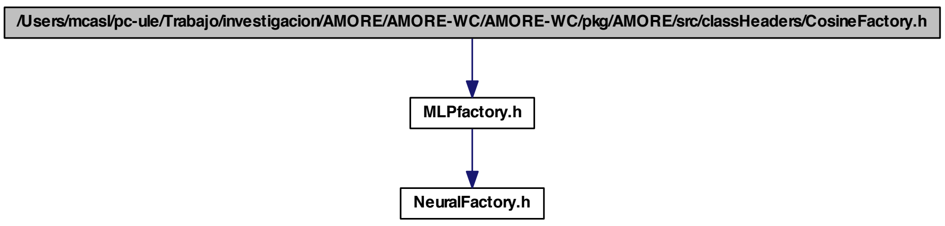
- class Cosine

  class Cosine -

6.22 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/CosineFactory.h File Reference

`#include "MLPfactory.h"`

Include dependency graph for CosineFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/CosineFactory.h
MLPfactory.h
NeuralFactory.h

Classes

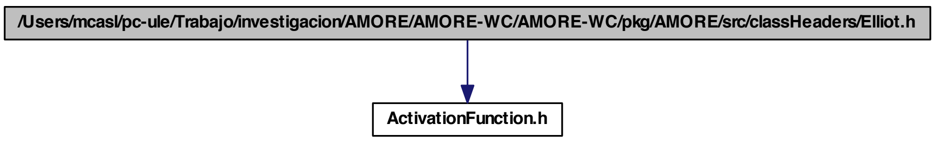
- class CosineFactory

    class CosineFactory -

6.23 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Elliot.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for Elliot.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Elliot.h
ActivationFunction.h

Classes

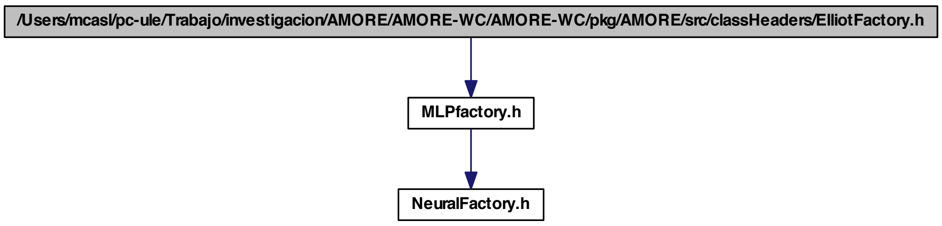
- class Elliot

    class Elliot -

6.24 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ElliotFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for ElliotFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ElliotFactory.h
MLPfactory.h
NeuralFactory.h

Classes

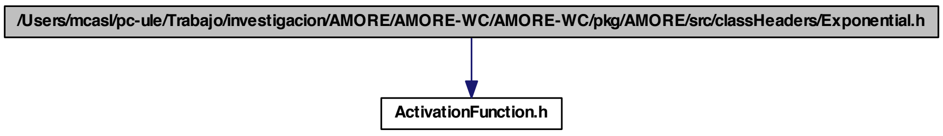
- class ElliotFactory

  class ElliotFactory -

6.25 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Exponential.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for Exponential.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Exponential.h
ActivationFunction.h

Classes

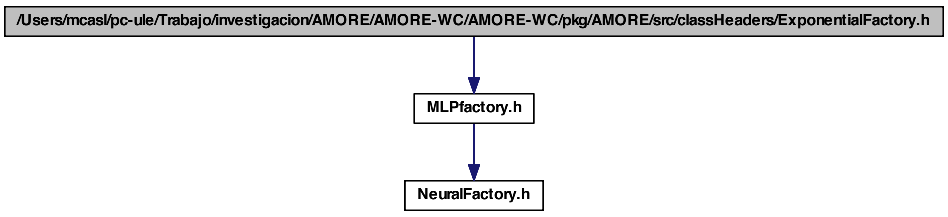
- class Exponential

  class Exponential -

6.26 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ExponentialFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for ExponentialFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ExponentialFactory.h
MLPfactory.h
NeuralFactory.h

Classes

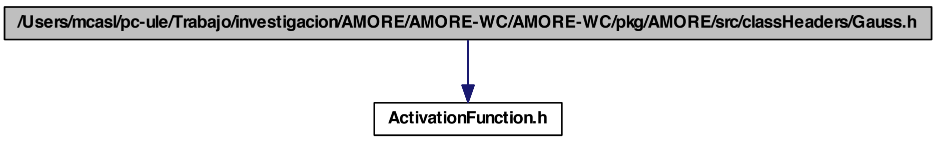
- class ExponentialFactory

  class ExponentialFactory -

6.27 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Gauss.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for Gauss.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Gauss.h
ActivationFunction.h

Classes

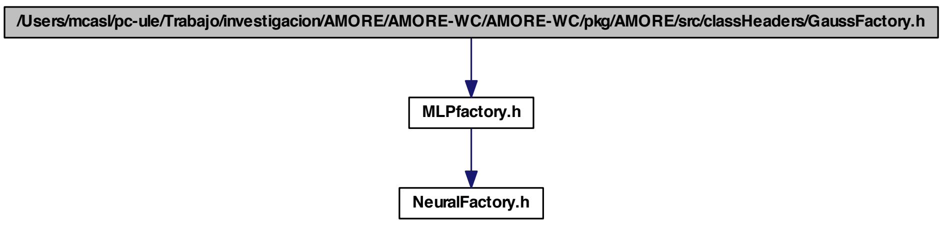
- class Gauss

class Gauss -

6.28 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/GaussFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for GaussFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/GaussFactory.h
MLPfactory.h
NeuralFactory.h

Classes

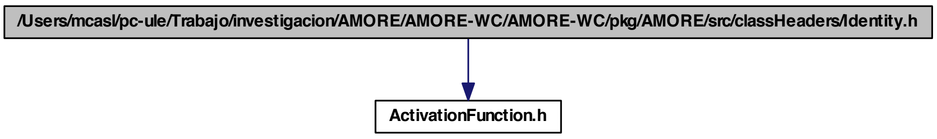
- class GaussFactory

  class GaussFactory -

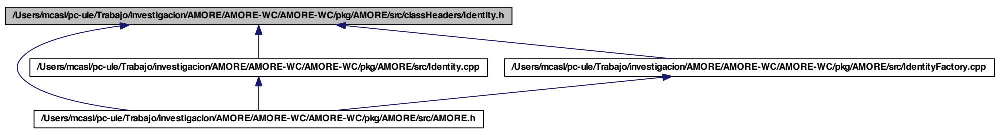
6.29 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Identity.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for Identity.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Identity.h
ActivationFunction.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Identity.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Identity.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/IdentityFactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

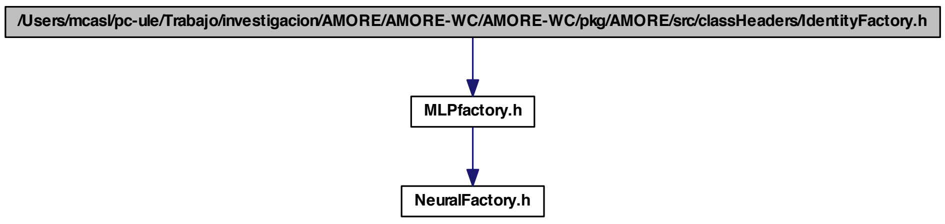
- class Identity

  class Identity -

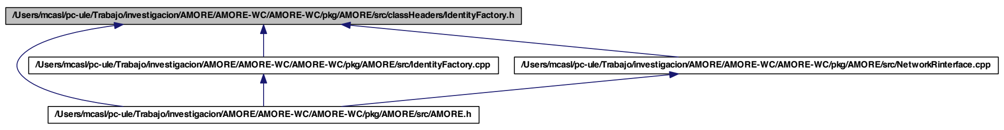
6.30 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/IdentityFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for IdentityFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/IdentityFactory.h
MLPfactory.h
NeuralFactory.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/IdentityFactory.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/IdentityFactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NetworkRinterface.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

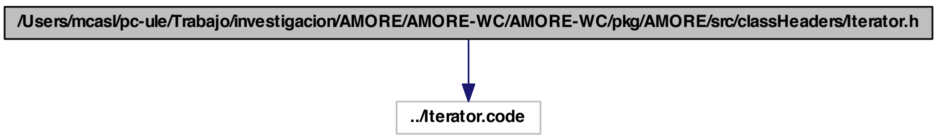
- class IdentityFactory

  class IdentityFactory -

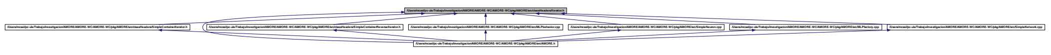
6.31 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Iterator.h File Reference

```
#include "../Iterator.code"
```

Include dependency graph for Iterator.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Iterator.h
../Iterator.code

This graph shows which files directly or indirectly include this file:



Classes

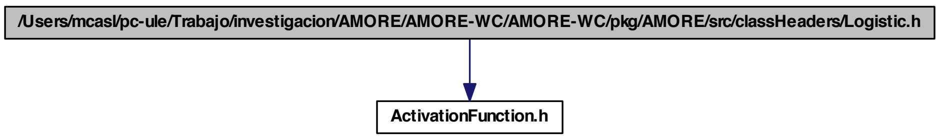
- class Iterator< T >

  class Iterator -

6.32 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Logistic.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for Logistic.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Logistic.h
ActivationFunction.h

Classes

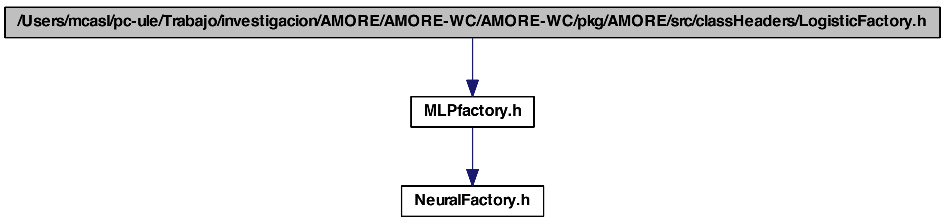
- class Logistic

  class Logistic -

6.33 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/LogisticFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for LogisticFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/LogisticFactory.h
MLPfactory.h
NeuralFactory.h

Classes

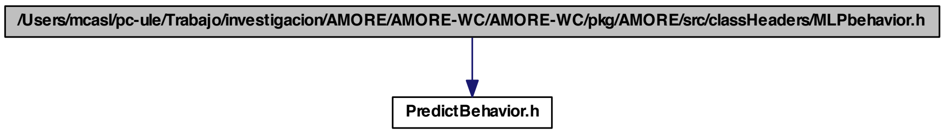
- class LogisticFactory

  class LogisticFactory -

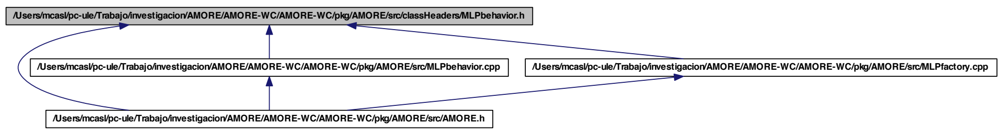
6.34 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/MLPbehavior.h File Reference

```
#include "PredictBehavior.h"
```

Include dependency graph for MLPbehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/MLPbehavior.h
PredictBehavior.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/MLPbehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPbehavior.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

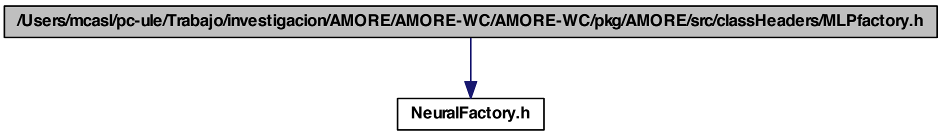
- class MLPbehavior

  class MLPbehavior -

6.35 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/MLPfactory.h File Reference

```
#include "NeuralFactory.h"
```

Include dependency graph for MLPfactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/MLPfactory.h
NeuralFactory.h

This graph shows which files directly or indirectly include this file:

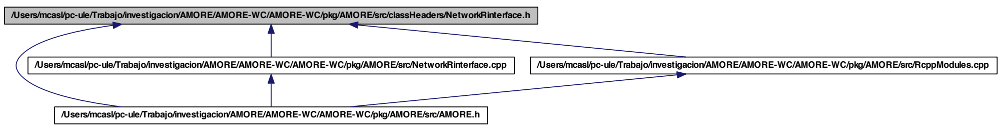
Classes

- class MLPfactory

    class MLPfactory -

6.36 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NetworkRinterface.h File Reference

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NetworkRinterface.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NetworkRinterface.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/RcppModules.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

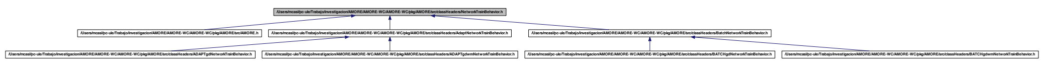
Classes

- class NetworkRinterface

    class NetworkRinterface -

6.37 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NetworkTrainBehavior.h File Reference

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NetworkTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/AdaptNetworkTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BatchNetworkTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdNetworkTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdwmNetworkTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdNetworkTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdwmNetworkTrainBehavior.h

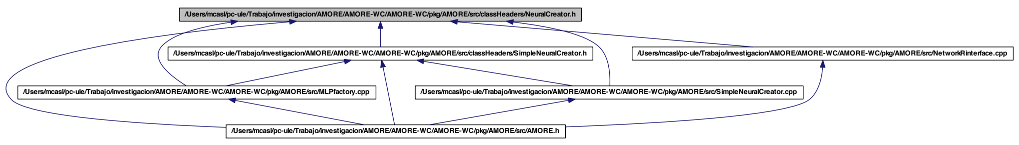
Classes

- class NetworkTrainBehavior

  class NetworkTrainBehavior -

6.38 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NeuralCreator.h File Reference

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NeuralCreator.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNeuralCreator.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NetworkRinterface.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuralCreator.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

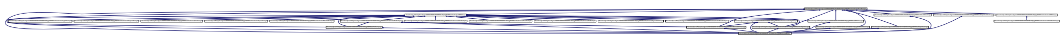
Classes

- class NeuralCreator

  class NeuralCreator -

6.39 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NeuralFactory.h File Reference

This graph shows which files directly or indirectly include this file:



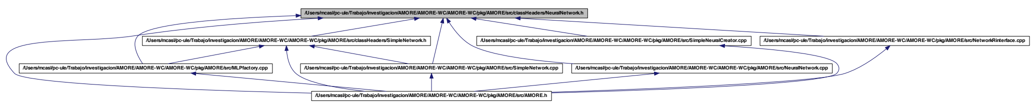
Classes

- class NeuralFactory

  class NeuralFactory -

6.40 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NeuralNetwork.h File Reference

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NeuralNetwork.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNetwork.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuralCreator.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NetworkRinterface.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNetwork.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NeuralNetwork.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

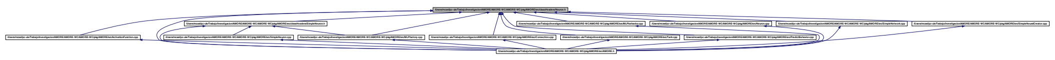
Classes

- class NeuralNetwork

  class NeuralNetwork -

6.41 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Neuron.h File Reference

This graph shows which files directly or indirectly include this file:



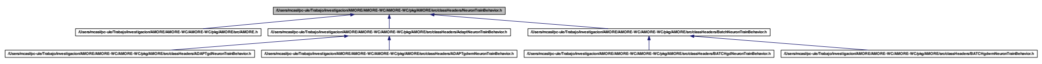
Classes

- class Neuron

  class Neuron -

6.42 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NeuronTrainBehavior.h File Reference

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/NeuronTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/AdaptNeuronTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BatchNeuronTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdNeuronTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ADAPTgdwmNeuronTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdNeuronTrainBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/BATCHgdwmNeuronTrainBehavior.h

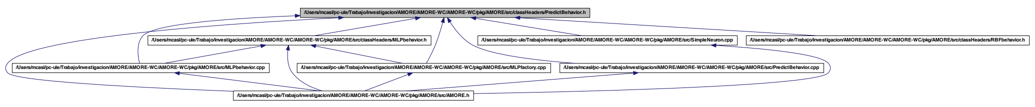
Classes

- class NeuronTrainBehavior

  class NeuronTrainBehavior -

6.43 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/PredictBehavior.h File Reference

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/PredictBehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/MLPbehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuron.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RBFbehavior.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPbehavior.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/PredictBehavior.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

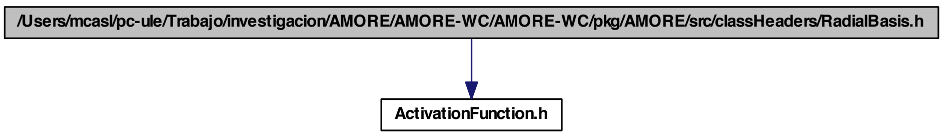
- class PredictBehavior

  class PredictBehavior -

6.44 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RadialBasis.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for RadialBasis.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RadialBasis.h
ActivationFunction.h

Classes

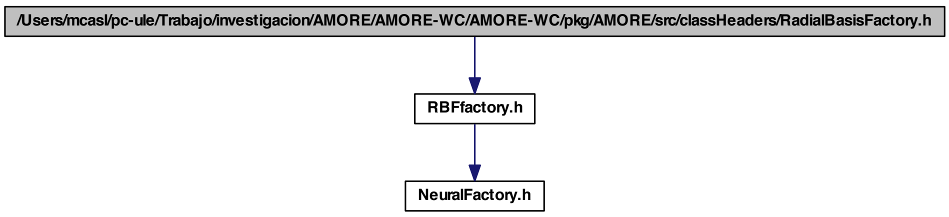
- class RadialBasis

  class RadialBasis -

6.45 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RadialBasisFactory.h File Reference

```
#include "RBFfactory.h"
```

Include dependency graph for RadialBasisFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RadialBasisFactory.h
RBFfactory.h
NeuralFactory.h

Classes

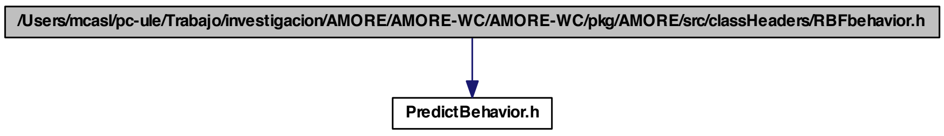
- class RadialBasisFactory

class RadialBasisFactory -

6.46 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RBFbehavior.h File Reference

```
#include "PredictBehavior.h"
```

Include dependency graph for RBFbehavior.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RBFbehavior.h
PredictBehavior.h

Classes

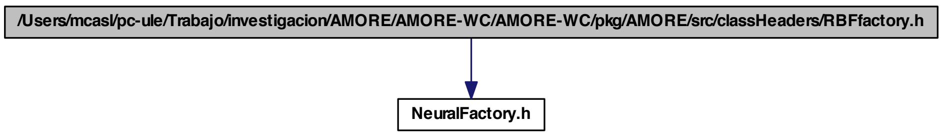
- class RBFbehavior

  class RBFbehavior -

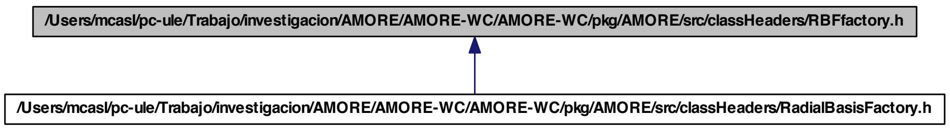
6.47 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RBFfactory.h File Reference

```
#include "NeuralFactory.h"
```

Include dependency graph for RBFfactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RBFfactory.h
NeuralFactory.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RBFfactory.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/RadialBasisFactory.h

Classes

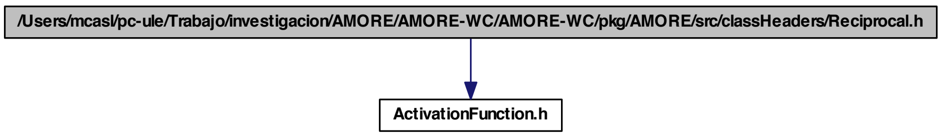
- class RBFfactory

  class RBFfactory -

6.48 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Reciprocal.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for Reciprocal.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Reciprocal.h
ActivationFunction.h

Classes

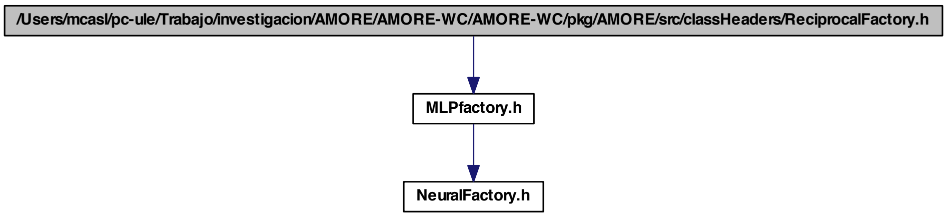
- class Reciprocal

  class Reciprocal -

6.49 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ReciprocalFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for ReciprocalFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ReciprocalFactory.h
MLPfactory.h
NeuralFactory.h

Classes

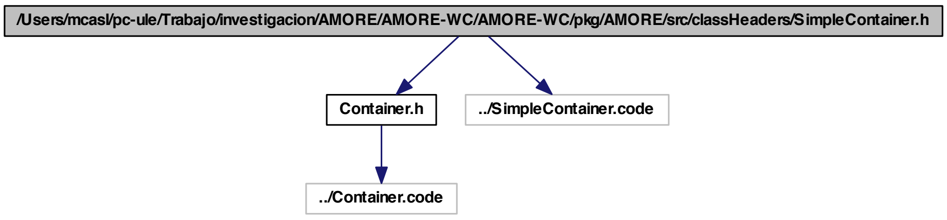
- class ReciprocalFactory

  class ReciprocalFactory -

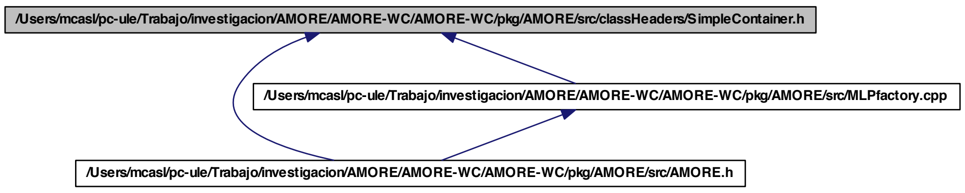
6.50 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleContainer.h File Reference

```
#include "Container.h"
#include "../SimpleContainer.code"
```

Include dependency graph for SimpleContainer.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleContainer.h
Container.h
../SimpleContainer.code
../Container.code

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleContainer.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

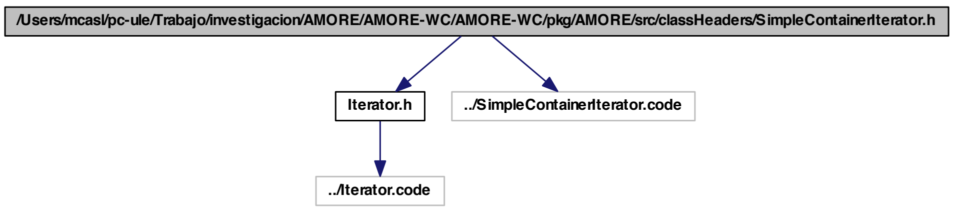
- class SimpleContainer< T >

    class SimpleContainer -

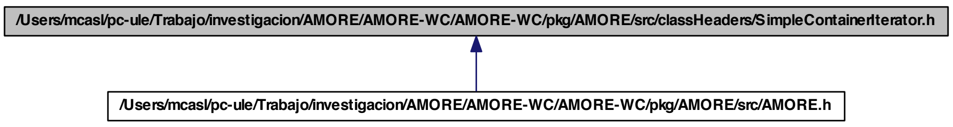
6.51 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleContainerIterator.h File Reference

```
#include "Iterator.h"
#include "../SimpleContainerIterator.code"
```

Include dependency graph for SimpleContainerIterator.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleContainerIterator.h
Iterator.h
../SimpleContainerIterator.code
../Iterator.code

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleContainerIterator.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

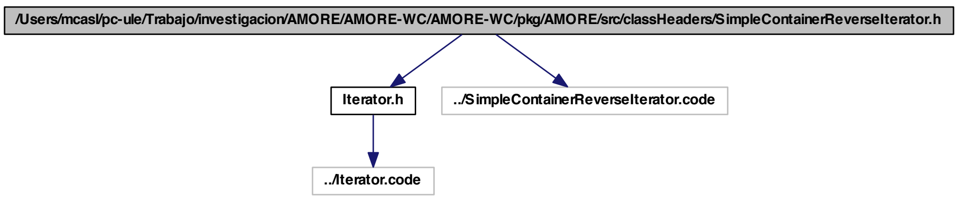
- class SimpleContainerIterator< T >

  class SimpleContainerIterator -

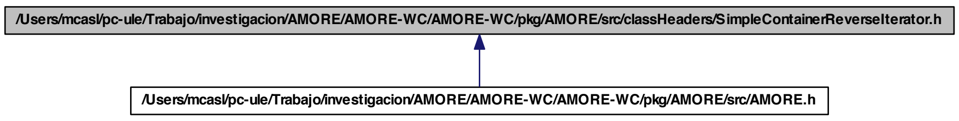
6.52 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleContainerReverseIterator.h File Reference

```
#include "Iterator.h"
#include "../SimpleContainerReverseIterator.code"
```

Include dependency graph for SimpleContainerReverseIterator.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleContainerReverseIterator.h
Iterator.h
../SimpleContainerReverseIterator.code
../Iterator.code

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleContainerReverseIterator.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

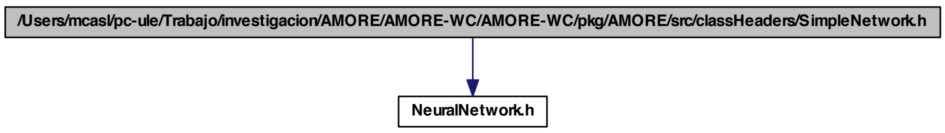
- class SimpleContainerReverseIterator< T >

  class SimpleContainerReverseIterator -

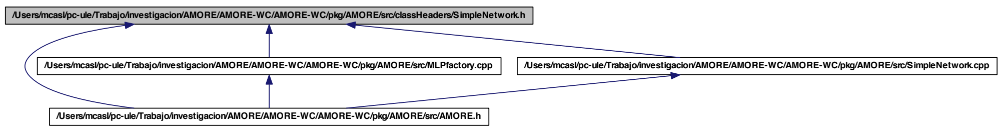
6.53 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNetwork.h File Reference

```
#include "NeuralNetwork.h"
```

Include dependency graph for SimpleNetwork.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNetwork.h
NeuralNetwork.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNetwork.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNetwork.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

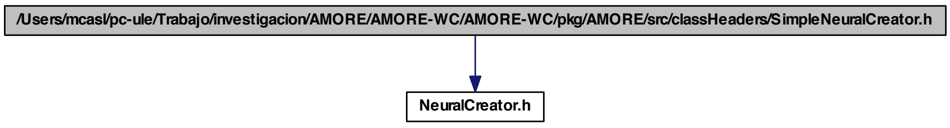
- class SimpleNetwork

  class SimpleNetwork -

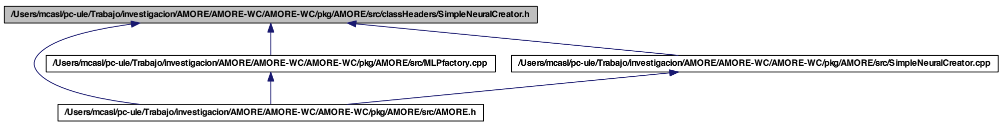
6.54 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNeuralCreator.h File Reference

```
#include "NeuralCreator.h"
```

Include dependency graph for SimpleNeuralCreator.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNeuralCreator.h
NeuralCreator.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNeuralCreator.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuralCreator.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

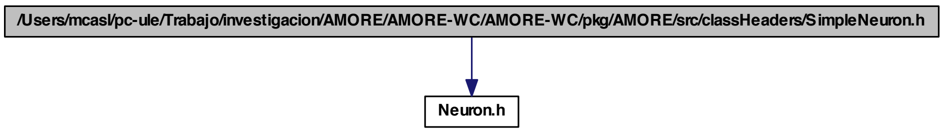
- class SimpleNeuralCreator

  class SimpleNeuralCreator -

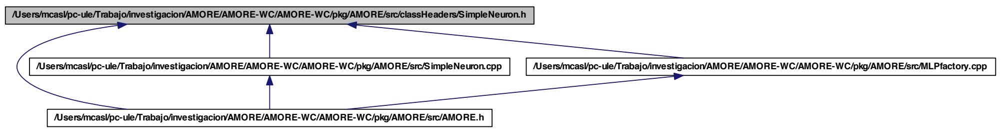
6.55 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNeuron.h File Reference

```
#include "Neuron.h"
```

Include dependency graph for SimpleNeuron.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNeuron.h
Neuron.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SimpleNeuron.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuron.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

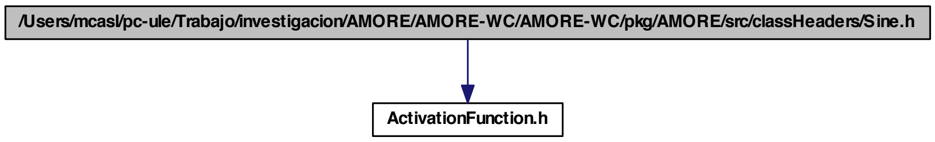
- class SimpleNeuron

    class SimpleNeuron -

6.56 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Sine.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for Sine.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Sine.h
ActivationFunction.h

Classes

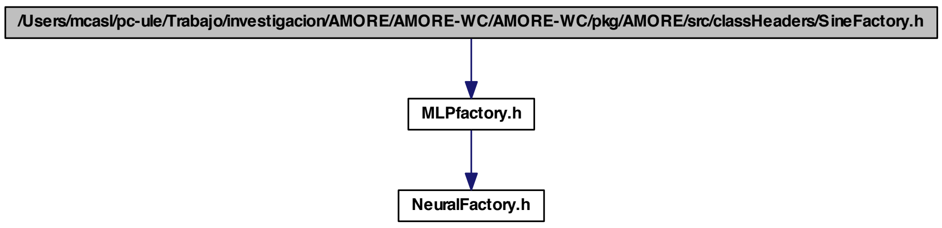
- class Sine

  class Sine -

6.57 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SineFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for SineFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SineFactory.h
MLPfactory.h
NeuralFactory.h

Classes

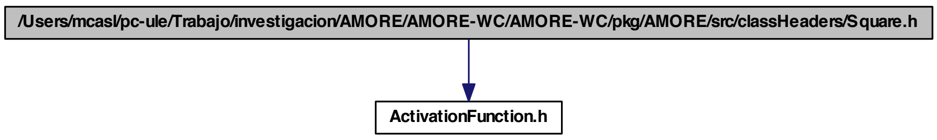
- class SineFactory

  class SineFactory -

6.58 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Square.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for Square.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Square.h
ActivationFunction.h

Classes

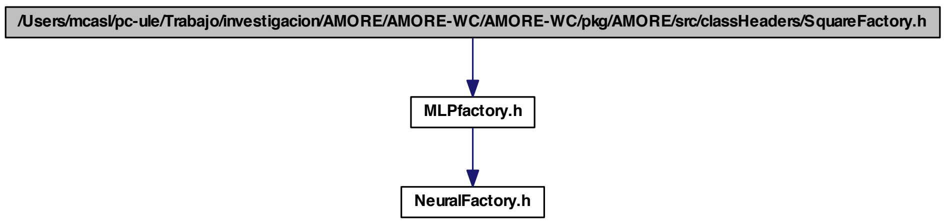
- class Square

  class Square -

6.59 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SquareFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for SquareFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/SquareFactory.h
MLPfactory.h
NeuralFactory.h

Classes

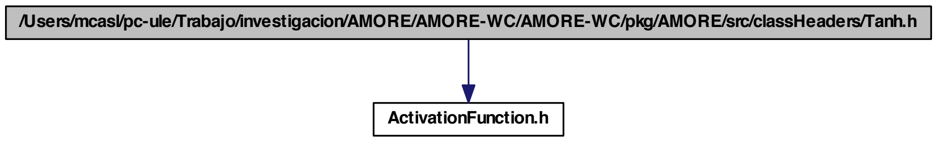
- class SquareFactory

  class SquareFactory -

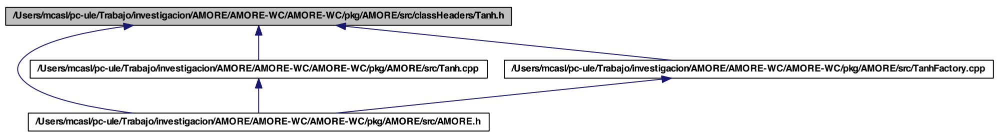
6.60 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Tanh.h File Reference

```
#include "ActivationFunction.h"
```

Include dependency graph for Tanh.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Tanh.h
ActivationFunction.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Tanh.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Tanh.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/TanhFactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

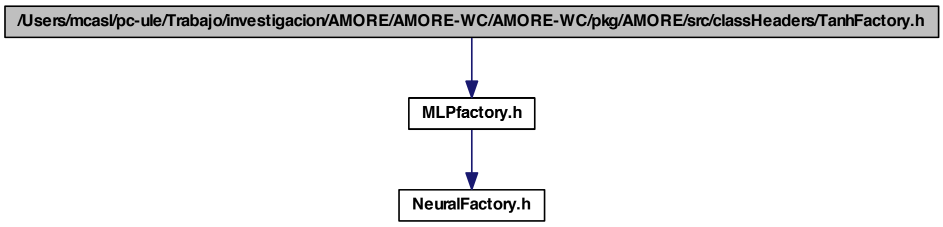
- class Tanh

  class Tanh -

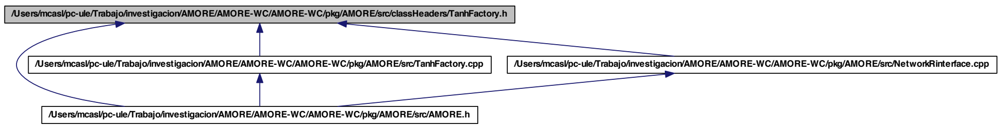
6.61 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/TanhFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for TanhFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/TanhFactory.h
MLPfactory.h
NeuralFactory.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/TanhFactory.h
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/TanhFactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NetworkRinterface.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Classes

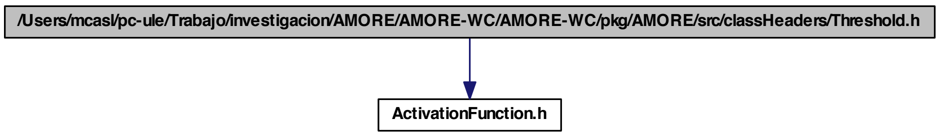
- class TanhFactory

  class TanhFactory -

6.62 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Threshold.h File Reference

`#include "ActivationFunction.h"`

Include dependency graph for Threshold.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/Threshold.h
ActivationFunction.h

Classes

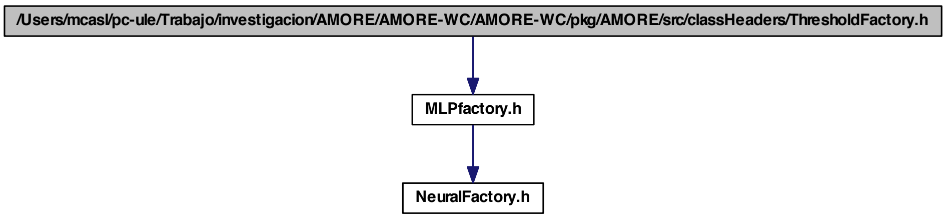
- class Threshold

  class Threshold -

6.63 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ThresholdFactory.h File Reference

```
#include "MLPfactory.h"
```

Include dependency graph for ThresholdFactory.h:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/classHeaders/ThresholdFactory.h
MLPfactory.h
NeuralFactory.h

Classes

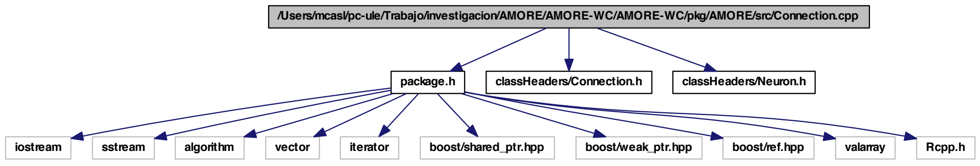
- class ThresholdFactory

  class ThresholdFactory -

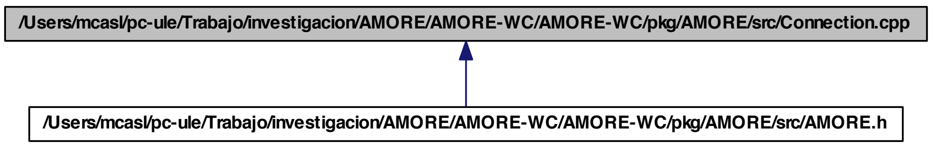
6.64 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Connection.cpp File Reference

```
#include "package.h"
#include "classHeaders/Connection.h"
#include "classHeaders/Neuron.h"
```

Include dependency graph for Connection.cpp:



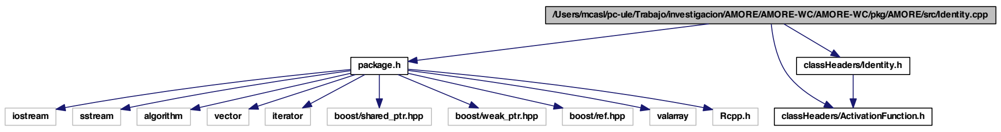
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Connection.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

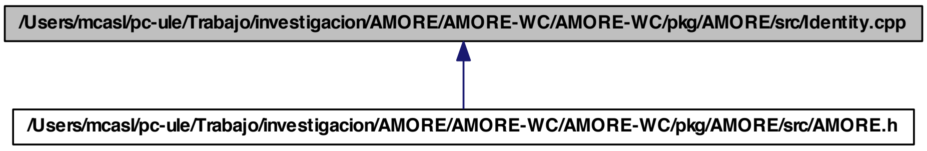
6.65 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Identity.cpp File Reference

```
#include "package.h"
#include "classHeaders/ActivationFunction.h"
#include "classHeaders/Identity.h"
```

Include dependency graph for Identity.cpp:



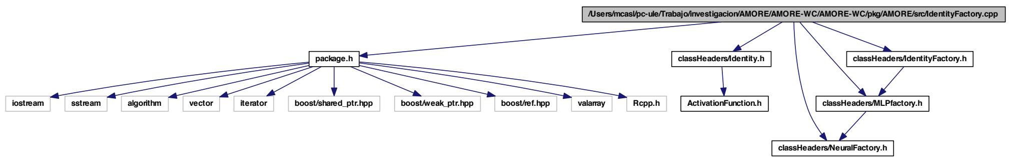
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Identity.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

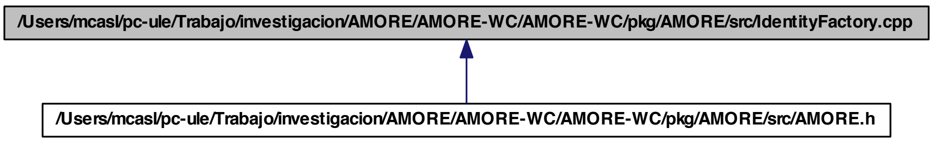
6.66 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/IdentityFactory.cpp File Reference

```
#include "package.h"
#include "classHeaders/Identity.h"
#include "classHeaders/NeuralFactory.h"
#include "classHeaders/MLPfactory.h"
#include "classHeaders/IdentityFactory.h"
```

Include dependency graph for IdentityFactory.cpp:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/IdentityFactory.cpp
package.h
classHeaders/Identity.h
classHeaders/IdentityFactory.h
iostream
sstream
algorithm
vector
iterator
boost/shared_ptr.hpp
boost/weak_ptr.hpp
boost/ref.hpp
valarray
Rcpp.h
ActivationFunction.h
classHeaders/MLPfactory.h
classHeaders/NeuralFactory.h

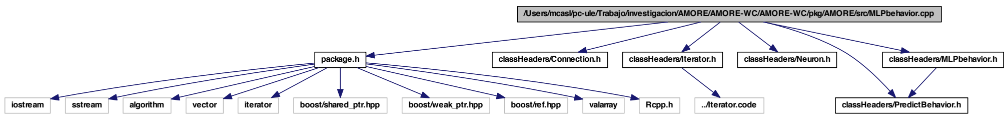
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/IdentityFactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

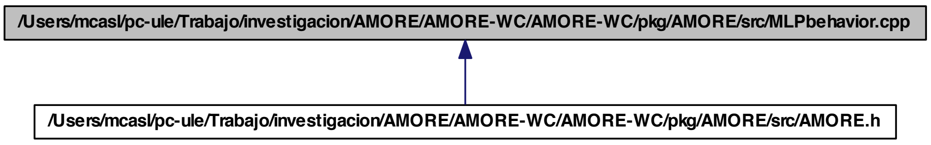
6.67 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPbehavior.cpp File Reference

```
#include "package.h"
#include "classHeaders/Connection.h"
#include "classHeaders/Iterator.h"
#include "classHeaders/Neuron.h"
#include "classHeaders/PredictBehavior.h"
#include "classHeaders/MLPbehavior.h"
```

Include dependency graph for MLPbehavior.cpp:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPbehavior.cpp
package.h
classHeaders/Connection.h
classHeaders/Iterator.h
classHeaders/Neuron.h
classHeaders/MLPbehavior.h
iostream
sstream
algorithm
vector
iterator
boost/shared_ptr.hpp
boost/weak_ptr.hpp
boost/ref.hpp
valarray
Rcpp.h
../Iterator.code
classHeaders/PredictBehavior.h

This graph shows which files directly or indirectly include this file:

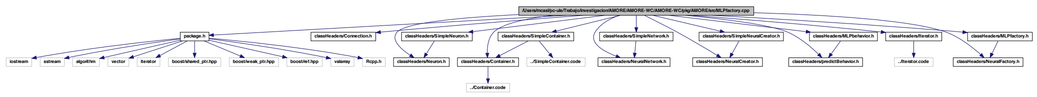

/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPbehavior.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

6.68 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp File Reference

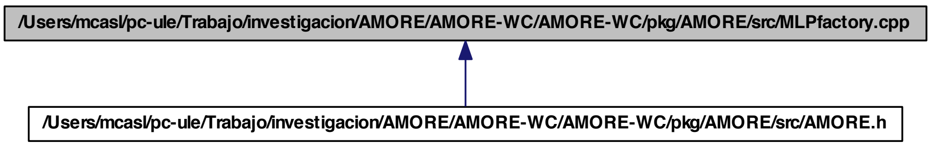
```
#include "package.h"
#include "classHeaders/Connection.h"
#include "classHeaders/Neuron.h"
#include "classHeaders/SimpleNeuron.h"
#include "classHeaders/Container.h"
#include "classHeaders/SimpleContainer.h"
```

```
#include "classHeaders/NeuralNetwork.h"
#include "classHeaders/SimpleNetwork.h"
#include "classHeaders/NeuralCreator.h"
#include "classHeaders/SimpleNeuralCreator.h"
#include "classHeaders/predictBehavior.h"
#include "classHeaders/MLPbehavior.h"
#include "classHeaders/Iterator.h"
#include "classHeaders/NeuralFactory.h"
#include "classHeaders/MLPfactory.h"
```

Include dependency graph for MLPfactory.cpp:



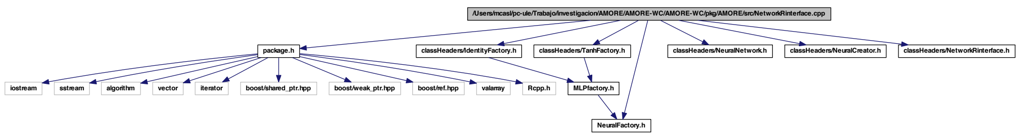
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/MLPfactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

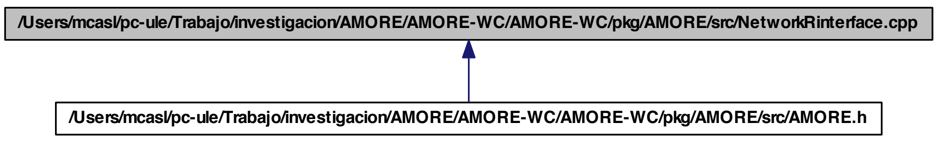
6.69 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NetworkRinterface.cpp File Reference

```
#include "package.h"
#include "classHeaders/IdentityFactory.h"
#include "classHeaders/TanhFactory.h"
#include "classHeaders/NeuralFactory.h"
#include "classHeaders/NeuralNetwork.h"
#include "classHeaders/NeuralCreator.h"
#include "classHeaders/NetworkRinterface.h"
```

Include dependency graph for NetworkRinterface.cpp:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NetworkRinterface.cpp
package.h
classHeaders/IdentityFactory.h
classHeaders/TanhFactory.h
classHeaders/NeuralNetwork.h
classHeaders/NeuralCreator.h
classHeaders/NetworkRinterface.h
iostream
sstream
algorithm
vector
iterator
boost/shared_ptr.hpp
boost/weak_ptr.hpp
boost/ref.hpp
valarray
Rcpp.h
MLPfactory.h
NeuralFactory.h

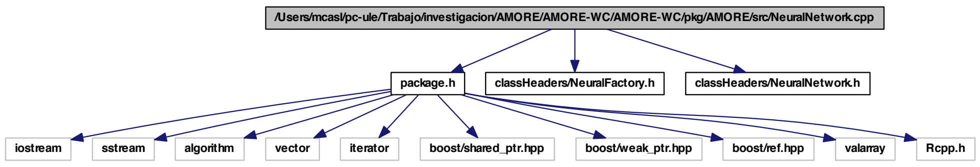
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NetworkRinterface.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

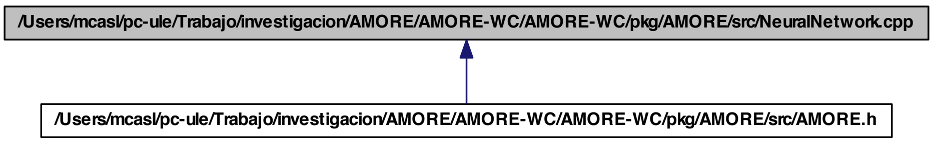
6.70 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NeuralNetwork.cpp File Reference

```
#include "package.h"
#include "classHeaders/NeuralFactory.h"
#include "classHeaders/NeuralNetwork.h"
```

Include dependency graph for NeuralNetwork.cpp:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NeuralNetwork.cpp
package.h
classHeaders/NeuralFactory.h
classHeaders/NeuralNetwork.h
iostream
sstream
algorithm
vector
iterator
boost/shared_ptr.hpp
boost/weak_ptr.hpp
boost/ref.hpp
valarray
Rcpp.h

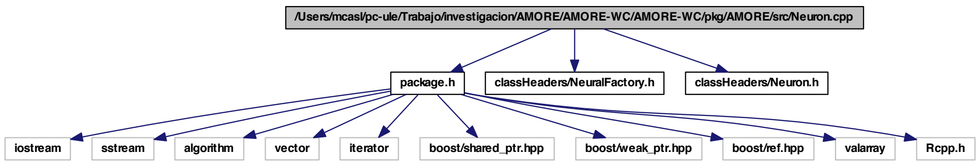
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/NeuralNetwork.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

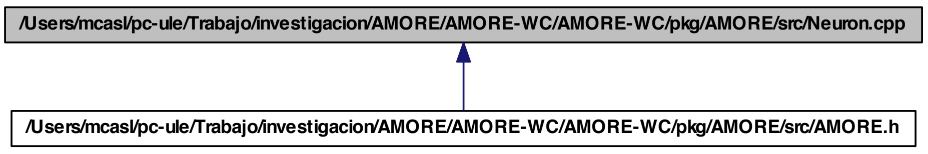
6.71 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Neuron.cpp File Reference

```
#include "package.h"
#include "classHeaders/NeuralFactory.h"
#include "classHeaders/Neuron.h"
```

Include dependency graph for Neuron.cpp:



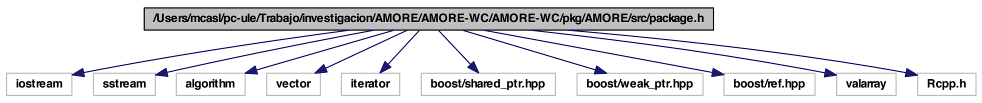
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Neuron.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

6.72 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/package.h File Reference

```
#include <iostream>
#include <sstream>
#include <algorithm>
#include <vector>
#include <iterator>
#include <boost/shared_ptr.hpp>
#include <boost/weak_ptr.hpp>
#include <boost/ref.hpp>
#include <valarray>
#include <Rcpp.h>
```

Include dependency graph for package.h:



This graph shows which files directly or indirectly include this file:

Defines

- #define size_type unsigned int

Typedefs

- typedef int Handler
- typedef boost::reference_wrapper< PredictBehavior > ActivationFunctionRef
- typedef boost::reference_wrapper< PredictBehavior > PredictBehaviorRef
- typedef boost::reference_wrapper< Neuron > NeuronRef
- typedef boost::shared_ptr< ActivationFunction > ActivationFunctionPtr
- typedef boost::shared_ptr< PredictBehavior > PredictBehaviorPtr
- typedef boost::shared_ptr< NetworkTrainBehavior > NetworkTrainBehaviorPtr
- typedef boost::shared_ptr< NeuronTrainBehavior > NeuronTrainBehaviorPtr

- typedef boost::shared_ptr< Neuron > NeuronPtr
- typedef boost::shared_ptr< Con > ConPtr
- typedef boost::shared_ptr< NeuralNetwork > NeuralNetworkPtr
- typedef boost::shared_ptr< Iterator< NeuronPtr > > NeuronIteratorPtr
- typedef boost::shared_ptr< Iterator< ConPtr > > ConIteratorPtr
- typedef boost::shared_ptr< Container< NeuronPtr > > LayerPtr
- typedef boost::shared_ptr< Container< LayerPtr > > LayerContainerPtr
- typedef boost::shared_ptr< Container< ConPtr > > ConContainerPtr
- typedef boost::shared_ptr< NeuralFactory > NeuralFactoryPtr
- typedef boost::shared_ptr< NeuralCreator > NeuralCreatorPtr
- typedef boost::weak_ptr< NeuralNetwork > NeuralNetworkWeakPtr
- typedef boost::weak_ptr< Neuron > NeuronWeakPtr

6.72.1 Define Documentation

6.72.1.1 #define size_type unsigned int

Definition at line 81 of file package.h.

6.72.2 Typedef Documentation

6.72.2.1 typedef boost::shared_ptr<ActivationFunction> ActivationFunctionPtr

Definition at line 91 of file package.h.

6.72.2.2 typedef boost::reference_wrapper<PredictBehavior> ActivationFunctionRef

Definition at line 86 of file package.h.

6.72.2.3 typedef boost::shared_ptr<Container<ConPtr> > ConContainerPtr

Definition at line 105 of file package.h.

6.72.2.4 typedef boost::shared_ptr<Iterator<ConPtr> > ConIteratorPtr

Definition at line 100 of file package.h.

6.72.2.5 typedef boost::shared_ptr<Con> ConPtr

Definition at line 96 of file package.h.

6.72.2.6 typedef int Handler

Definition at line 84 of file package.h.

6.72.2.7 typedef boost::shared_ptr<Container<LayerPtr> > LayerContainerPtr

Definition at line 103 of file package.h.

6.72.2.8 typedef boost::shared_ptr<Container<NeuronPtr> > LayerPtr

Definition at line 102 of file package.h.

6.72.2.9 typedef boost::shared_ptr<NetworkTrainBehavior> NetworkTrainBehaviorPtr

Definition at line 93 of file package.h.

6.72.2.10 typedef boost::shared_ptr<NeuralCreator> NeuralCreatorPtr

Definition at line 108 of file package.h.

6.72.2.11 typedef boost::shared_ptr<NeuralFactory> NeuralFactoryPtr

Definition at line 107 of file package.h.

6.72.2.12 typedef boost::shared_ptr<NeuralNetwork> NeuralNetworkPtr

Definition at line 97 of file package.h.

6.72.2.13 typedef boost::weak_ptr<NeuralNetwork> NeuralNetworkWeakPtr

Definition at line 110 of file package.h.

6.72.2.14 typedef boost::shared_ptr<Iterator<NeuronPtr> > NeuronIteratorPtr

Definition at line 99 of file package.h.

6.72.2.15 typedef boost::shared_ptr<Neuron> NeuronPtr

Definition at line 95 of file package.h.

6.72.2.16 typedef boost::reference_wrapper<Neuron> NeuronRef

Definition at line 89 of file package.h.

6.72.2.17 typedef boost::shared_ptr<NeuronTrainBehavior> NeuronTrainBehaviorPtr

Definition at line 94 of file package.h.

6.72.2.18 typedef boost::weak_ptr<Neuron> NeuronWeakPtr

Definition at line 111 of file package.h.

6.72.2.19 typedef boost::shared_ptr<PredictBehavior> PredictBehaviorPtr

Definition at line 92 of file package.h.

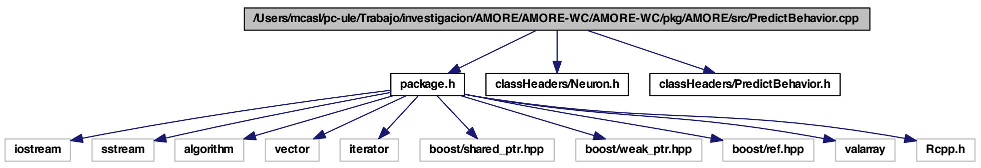
6.72.2.20 typedef boost::reference_wrapper<PredictBehavior> PredictBehaviorRef

Definition at line 87 of file package.h.

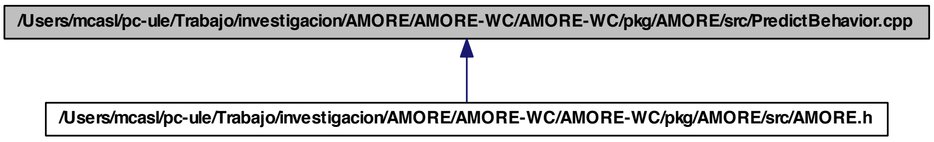
6.73 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/PredictBehavior.cpp File Reference

```
#include "package.h"
#include "classHeaders/Neuron.h"
#include "classHeaders/PredictBehavior.h"
```

Include dependency graph for PredictBehavior.cpp:



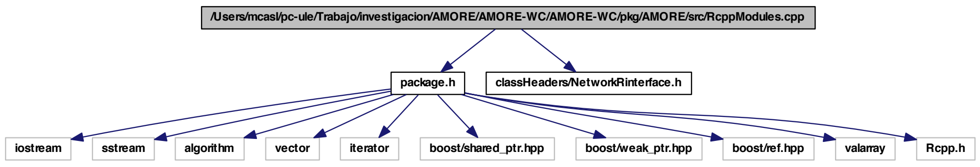
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/PredictBehavior.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

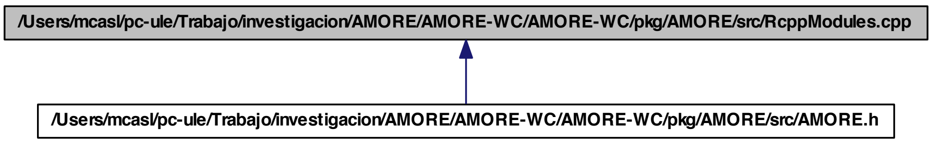
6.74 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/RcppModules.cpp File Reference

```
#include "package.h"
#include "classHeaders/NetworkRinterface.h"
```

Include dependency graph for RcppModules.cpp:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/RcppModules.cpp
package.h
classHeaders/NetworkRinterface.h
iostream
sstream
algorithm
vector
iterator
boost/shared_ptr.hpp
boost/weak_ptr.hpp
boost/ref.hpp
valarray
Rcpp.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/RcppModules.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Functions

- RCPP_MODULE (modAMORE)

6.74.1 Function Documentation

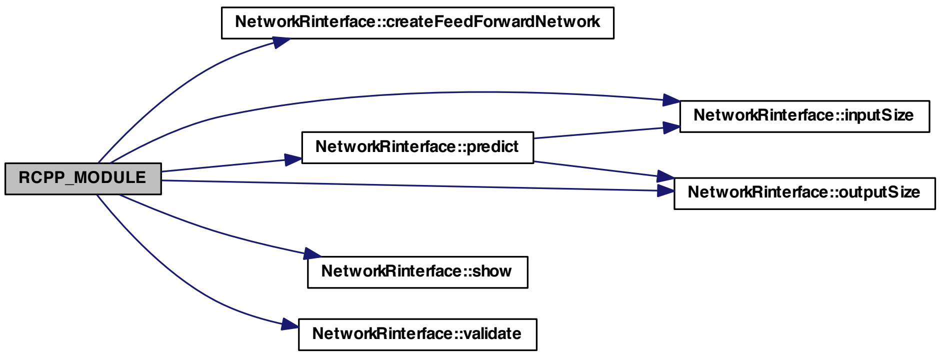
6.74.1.1 RCPP_MODULE (modAMORE)

Definition at line 5 of file RcppModules.cpp.

References NetworkRinterface::createFeedForwardNetwork(), NetworkRinterface::inputSize(), NetworkRinterface::outputSize(), NetworkRinterface::predict(), NetworkRinterface::show(), and NetworkRinterface::validate().

```
{
  class_<NetworkRinterface>( "NetworkRinterface" )
  .constructor()
  .method( "createFeedForwardNetwork", &
    NetworkRinterface::createFeedForwardNetwork )
  .method( "predict",                  &NetworkRinterface::predict )
  .method( "inputSize",                &NetworkRinterface::inputSize )
  .method( "outputSize",               &NetworkRinterface::outputSize )
  .method( "show",                     &NetworkRinterface::show )
  .method( "validate",                 &NetworkRinterface::validate )
  ;
}
```

Here is the call graph for this function:


NetworkRinterface::createFeedForwardNetwork
NetworkRinterface::inputSize
NetworkRinterface::predict
RCPP_MODULE
NetworkRinterface::outputSize
NetworkRinterface::show
NetworkRinterface::validate

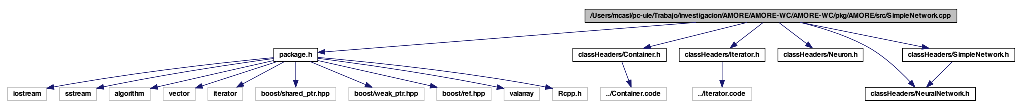
6.75 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNetwork.cpp File Reference

```
#include "package.h"
#include "classHeaders/Container.h"
#include "classHeaders/Iterator.h"
#include "classHeaders/Neuron.h"
```

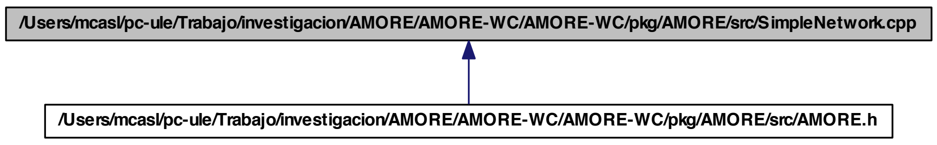
`#include "classHeaders/NeuralNetwork.h"`

`#include "classHeaders/SimpleNetwork.h"`

Include dependency graph for SimpleNetwork.cpp:



This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNetwork.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

6.76 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuralCreator.cpp File Reference

`#include "package.h"`

`#include "classHeaders/Container.h"`

`#include "classHeaders/Neuron.h"`

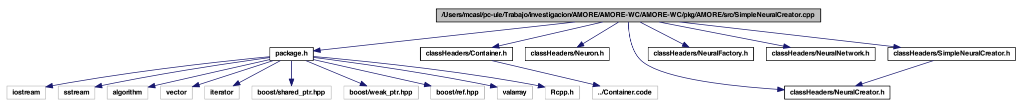
`#include "classHeaders/NeuralCreator.h"`

`#include "classHeaders/NeuralFactory.h"`

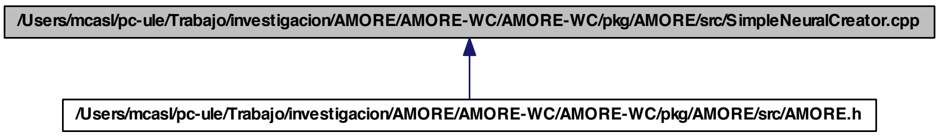
`#include "classHeaders/NeuralNetwork.h"`

`#include "classHeaders/SimpleNeuralCreator.h"`

Include dependency graph for SimpleNeuralCreator.cpp:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuralCreator.cpp
package.h
classHeaders/Container.h
classHeaders/Neuron.h
classHeaders/NeuralFactory.h
classHeaders/NeuralNetwork.h
classHeaders/SimpleNeuralCreator.h
iostream
sstream
algorithm
vector
iterator
boost/shared_ptr.hpp
boost/weak_ptr.hpp
boost/ref.hpp
valarray
Rcpp.h
../Container.code
classHeaders/NeuralCreator.h

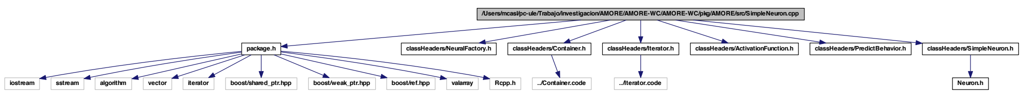
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuralCreator.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

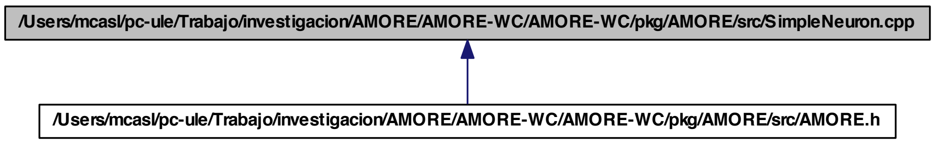
6.77 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuron.cpp File Reference

```
#include "package.h"
#include "classHeaders/NeuralFactory.h"
#include "classHeaders/Container.h"
#include "classHeaders/Iterator.h"
#include "classHeaders/ActivationFunction.h"
#include "classHeaders/PredictBehavior.h"
#include "classHeaders/SimpleNeuron.h"
```

Include dependency graph for SimpleNeuron.cpp:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuron.cpp
package.h
classHeaders/NeuralFactory.h
classHeaders/Container.h
classHeaders/Iterator.h
classHeaders/ActivationFunction.h
classHeaders/PredictBehavior.h
classHeaders/SimpleNeuron.h
iostream
sstream
algorithm
vector
iterator
boost/shared_ptr.hpp
boost/weak_ptr.hpp
boost/ref.hpp
valarray
Rcpp.h
../Container.code
../Iterator.code
Neuron.h

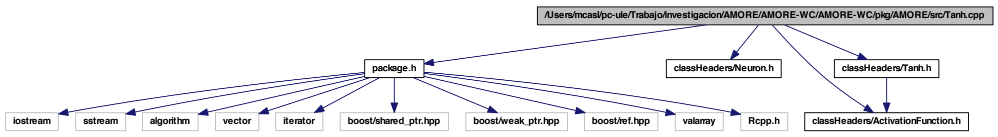
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/SimpleNeuron.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

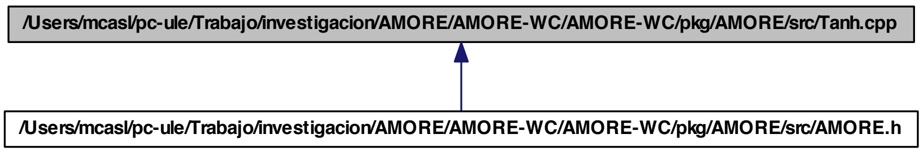
6.78 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Tanh.cpp File Reference

```
#include "package.h"
#include "classHeaders/Neuron.h"
#include "classHeaders/ActivationFunction.h"
#include "classHeaders/Tanh.h"
```

Include dependency graph for Tanh.cpp:



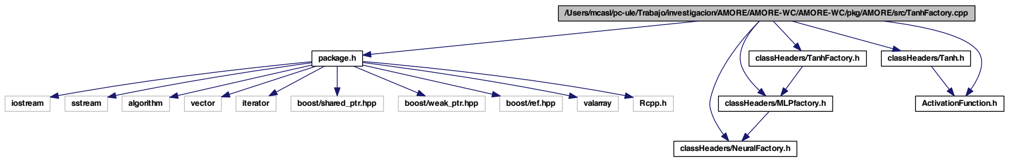
This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/Tanh.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

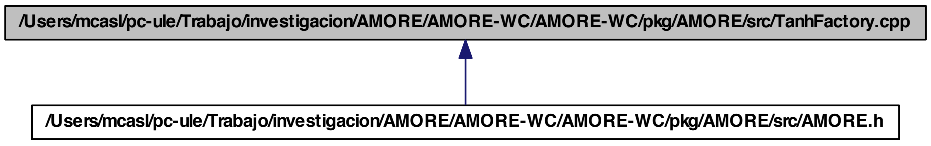
6.79 /Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/TanhFactory.cpp File Reference

```
#include "package.h"
#include "classHeaders/NeuralFactory.h"
#include "classHeaders/MLPfactory.h"
#include "classHeaders/Tanh.h"
#include "classHeaders/TanhFactory.h"
#include "classHeaders/ActivationFunction.h"
```

Include dependency graph for TanhFactory.cpp:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/TanhFactory.cpp
package.h
classHeaders/TanhFactory.h
classHeaders/Tanh.h
iostream
sstream
algorithm
vector
iterator
boost/shared_ptr.hpp
boost/weak_ptr.hpp
boost/ref.hpp
valarray
Rcpp.h
classHeaders/MLPfactory.h
ActivationFunction.h
classHeaders/NeuralFactory.h

This graph shows which files directly or indirectly include this file:


/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/TanhFactory.cpp
/Users/mcasl/pc-ule/Trabajo/investigacion/AMORE/AMORE-WC/AMORE-WC/pkg/AMORE/src/AMORE.h

Index