Aeris

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Contents

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Hierarchical Index

1.1 Class Hierarchy

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

Chapter 2

Class Index

2.1 Class List

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

Chapter 3

Class Documentation

3.1 CAction Class Reference

Public Member Functions

- **CAction** (u32 states_count, u32 actions_per_state, u32 action_width=1)
- struct sAction **get** (u32 state, u32 id)
- void **set** (u32 state, u32 id, struct sAction action, float weight)
- void **set_fitness** (u32 state, u32 id, float fitness)
- u32 **get_states_count** ()
- u32 **get_actions_per_state** ()

3.1.1 Detailed Description

Definition at line 15 of file action.h.

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

- /home/michal/Desktop/aeris/src/q_learning/robot_brain/action.h
- /home/michal/Desktop/aeris/src/q_learning/robot_brain/action.cpp

3.2 CAppCore Class Reference

Public Member Functions

- void **on_delete** ()
- void **on_wall** ()
- void **on_red_robot** ()
- void **on_red_target** ()
- void **on_red_path** ()
- void **on_green_robot** ()
- void **on_green_target** ()
- void **on_green_path** ()
- void **on_blue_robot** ()
- void **on_blue_target** ()
- void **on_blue_path** ()
- void **on_path** ()
- void **on_target** ()

- void **on_source** ()
- void **on_destination** ()
- void **on_new** (char ∗file_name)
- void **on_open** (char ∗file_name)
- int **on_save** (char ∗file_name)
- void **on_save_as** (char ∗file_name)
- void **on_click** (int x, int y, float reward, int int_param, float float_param)
- void **on_paint** ()
- struct sMapField **get_field** (unsigned int x, unsigned int y)
- unsigned int **get_width** ()
- unsigned int **get_height** ()
- void **on_delete** ()
- void **on_wall** ()
- void **on_red_robot** ()
- void **on_red_target** ()
- void **on_red_path** ()
- void **on_green_robot** ()
- void **on_green_target** ()
- void **on_green_path** ()
- void **on_blue_robot** ()
- void **on_blue_target** ()
- void **on_blue_path** ()
- void **on_path** ()
- void **on_target** ()
- void **on_source** ()
- void **on_destination** ()
- void **on_new** (char ∗file_name)
- void **on_open** (char ∗file_name)
- int **on_save** ()
- void **on_save_as** (char ∗file_name)
- void **on_click** (int x, int y, int width, int height)
- void **on_paint** ()
- struct sSquare ∗ **get_square** ()
- unsigned int **get_width** ()
- unsigned int **get_height** ()

3.2.1 Detailed Description

Definition at line 16 of file app_core.h.

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

- /home/michal/Desktop/aeris/src/map_editor/app_core.h
- /home/michal/Desktop/aeris/src/map_editor/app_core.cpp

3.3 CClient Class Reference

Public Member Functions

- i32 **main** (struct sRobot ∗rx_packet, struct sRobot ∗tx_packet)
- i32 **main** (struct sRobot ∗rx_packet, struct sRobot ∗tx_packet)
- i32 **main** (struct sRobot ∗rx_packet, struct sRobot ∗tx_packet)
- i32 **main** (struct sRobot ∗rx_packet, struct sRobot ∗tx_packet)
- i32 **main** (struct sRobot ∗rx_packet, struct sRobot ∗tx_packet)
- i32 **main** (struct sRobot ∗rx_packet, struct sRobot ∗tx_packet)

3.3.1 Detailed Description

Definition at line 6 of file client.h.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/client.h
- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/client.cpp

3.4 CCollectiveBrain Class Reference

Public Member Functions

- **CCollectiveBrain** (u32 width, u32 height)
- i32 **load_from_file** (char *file_name)
- i32 **save_to_file** (char *file_name)
- float **get_output** (u32 x, u32 y)
- void **set_value** (u32 x, u32 y, float value)
- void **merge_max** (u32 x, u32 y, float value)
- void **merge_min** (u32 x, u32 y, float value)
- void **merge_average** (u32 x, u32 y, float value, float weight)
- **CCollectiveBrain** (u32 width, u32 height)
- i32 **load_from_file** (char *file_name)
- i32 **save_to_file** (char *file_name)
- float **get_output** (u32 x, u32 y)
- void **set_value** (u32 x, u32 y, float value)
- void **merge_max** (u32 x, u32 y, float value)
- void **merge_min** (u32 x, u32 y, float value)
- void **merge_average** (u32 x, u32 y, float value, float weight)
- **CCollectiveBrain** (u32 width, u32 height)
- i32 **load_from_file** (char *file_name)
- i32 **save_to_file** (char *file_name)
- float **get_output** (u32 x, u32 y)
- void **set_value** (u32 x, u32 y, float value)
- void **merge_max** (u32 x, u32 y, float value)
- void **merge_min** (u32 x, u32 y, float value)
- void **merge_average** (u32 x, u32 y, float value, float weight)

3.4.1 Detailed Description

Definition at line 10 of file collective_brain.h.

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

- /home/michal/Desktop/aeris/src/virtual_robot/1.0.0/common/robot/collective_brain.h
- /home/michal/Desktop/aeris/src/virtual_robot/1.0.0/common/robot/collective_brain.cpp

3.5 CEnvironment Class Reference

Public Member Functions

- **CEnvironment** (u32 robots_count, struct sRobotInitStruct robot_init)
- **CEnvironment** (char *file_name)
- void **process** (u32 iteration=0)
- void **print** ()

3.5.1 Detailed Description

Definition at line 6 of file environment.h.

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

- /home/michal/Desktop/aeris/src/q_learning/robot_brain/environment.h
- /home/michal/Desktop/aeris/src/q_learning/robot_brain/environment.cpp

3.6 CKMeans Class Reference

Public Member Functions

- **CKMeans** (u32 centroids_count, u32 dimension, float speed=0.01)
- u32 **process** (std::vector< float > input)
- std::vector< float > **get_centroid** (u32 centroid_idx)
- **CKMeans** (u32 centroids_count, u32 dimension, float speed=0.01)
- u32 **process** (std::vector< float > input)
- std::vector< float > **get_centroid** (u32 centroid_idx)
- **CKMeans** (u32 centroids_count, u32 dimension, float speed=0.01)
- u32 **process** (std::vector< float > input)
- std::vector< float > **get_centroid** (u32 centroid_idx)
- **CKMeans** (u32 centroids_count, u32 dimension, float speed=0.01)
- u32 **process** (std::vector< float > input)
- std::vector< float > **get_centroid** (u32 centroid_idx)
- **CKMeans** (u32 centroids_count, u32 dimension, float speed=0.01)
- u32 **process** (std::vector< float > input)
- std::vector< float > **get_centroid** (u32 centroid_idx)
- **CKMeans** (u32 centroids_count, u32 dimension, float speed=0.01)
- u32 **process** (std::vector< float > input)
- std::vector< float > **get_centroid** (u32 centroid_idx)

3.6.1 Detailed Description

Definition at line 7 of file k_means.h.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/k_means.h
- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/k_means.cpp

3.7 CKohonenTest Class Reference

Public Member Functions

- void **run_test** ()
- void **set_input** ()
- float **rnd** ()
- u32 **target_in_obstacle** (float x0, float y0, float x1, float y1)

3.7.1 Detailed Description

Definition at line 7 of file kohonen_test.h.

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

- /home/michal/Desktop/aeris/src/q_learning/neural_network/kohonen_test.h
- /home/michal/Desktop/aeris/src/q_learning/neural_network/kohonen_test.cpp

3.8 CLog Class Reference

Public Member Functions

- **CLog** (char *file_name, u32 axis_count)
- void **add** (u32 axis, float value)
- void **save** ()
- void **normalize** (u32 axis)

3.8.1 Detailed Description

Definition at line 8 of file log.h.

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

- /home/michal/Desktop/aeris/src/common/log.h
- /home/michal/Desktop/aeris/src/common/log.cpp

3.9 CMap Class Reference

Public Member Functions

- **CMap** (u32 type, u32 id, u32 width=34, u32 height=19, float base_width=55.0, float base_height=55.0, void *next_info_ptr=NULL)
- void **init** (u32 type, u32 id, u32 width=34, u32 height=19, float base_width=55.0, float base_height=55.0, void *next_info_ptr=NULL)
- i32 **save** (char *file_name)
- i32 **load** (char *file_name)
- struct sMapField **get_at** (u32 x, u32 y)
- u32 **set_at** (u32 x, u32 y, struct sMapField field)
- u32 **get_height** ()
- u32 **get_width** ()
- void **print** ()

3.9.1 Detailed Description

Definition at line 63 of file map.h.

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

- /home/michal/Desktop/aeris/src/common/map.h
- /home/michal/Desktop/aeris/src/common/map.cpp

3.10 CNeuralNetwork Class Reference

Public Member Functions

- **CNeuralNetwork** (u32 inputs_count, u32 neuron_type, u32 hidden_neurons_count, u32 outputs_count, u32 order)
- void **process** (std::vector< float > input)
- std::vector< float > **get** ()
- void **learn** (std::vector< float > required_output, float lc=0.01)
- void **set_learning_pattern** (std::vector< float > lp)
- u32 **get_learning_pattern_size** ()
- **CNeuralNetwork** (struct sNeuralNetworkInitStructure nn_init_structure)
- void **process** (std::vector< float > input)
- std::vector< float > **get** ()
- void **learn** (std::vector< float > required_output)
- **CNeuralNetwork** (struct sNeuralNetworkInitStructure nn_init_structure)
- void **process** (std::vector< float > input)
- std::vector< float > **get** ()
- void **learn** (std::vector< float > required_output)
- **CNeuralNetwork** (struct sNeuralNetworkInitStructure nn_init_structure)
- void **process** (std::vector< float > input)
- std::vector< float > **get** ()
- void **learn** (std::vector< float > required_output)
- **CNeuralNetwork** (struct sNeuralNetworkInitStructure nn_init_structure)
- void **process** (std::vector< float > input)
- std::vector< float > **get** ()
- void **learn** (std::vector< float > required_output)
- **CNeuralNetwork** (struct sNeuralNetworkInitStructure nn_init_structure)
- void **process** (std::vector< float > input)
- std::vector< float > **get** ()
- void **learn** (std::vector< float > required_output)
- **CNeuralNetwork** (struct sNeuralNetworkInitStructure nn_init_structure)
- void **process** (std::vector< float > input)
- std::vector< float > **get** ()
- void **learn** (std::vector< float > required_output)

3.10.1 Detailed Description

Definition at line 7 of file neural_network.h.

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

- /home/michal/Desktop/aeris/src/q_learning/neural_network/neural_network.h
- /home/michal/Desktop/aeris/src/q_learning/neural_network/neural_network.cpp

3.11 CNeuralNetworkKohonen Class Reference

Public Member Functions

- **CNeuralNetworkKohonen** (u32 x_size, u32 y_size, u32 input_size, float weight_range=1.0, float lc=0.01, float lc2=0.1)
- void **process** (std::vector< float > input)
- void **learn** ()

- std::vector< float > **get** ()
- u32 **get_id** ()
- float **get_min_dist** ()
- float ∗ **get_w** (u32 neuron_idx)

3.11.1 Detailed Description

Definition at line 6 of file neural_network_kohonen.h.

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

- /home/michal/Desktop/aeris/src/q_learning/neural_network/neural_network_kohonen.h
- /home/michal/Desktop/aeris/src/q_learning/neural_network/neural_network_kohonen.cpp

3.12 CNeuralNetworkTest Class Reference

Public Member Functions

- void **process** (u32 learn=0)
- void **print** ()
- float **get_error** ()
- float **get_error_filtered** ()
- void **reset** ()
- void **process** (u32 learn=0)
- void **print** ()
- float **get_error** ()
- float **get_error_filtered** ()
- void **reset** ()
- void **process** (u32 learn=0)
- void **print** ()
- float **get_error** ()
- float **get_error_filtered** ()
- void **reset** ()
- void **process** (u32 learn=0)
- void **print** ()
- float **get_error** ()
- float **get_error_filtered** ()
- void **reset** ()
- void **process** (u32 learn=0)
- void **print** ()
- float **get_error** ()
- float **get_error_filtered** ()
- void **reset** ()
- void **process** (u32 learn=0)
- void **print** ()
- float **get_error** ()
- float **get_error_filtered** ()
- void **reset** ()
- void **process** (u32 learn=0)
- void **print** ()
- float **get_error** ()
- float **get_error_filtered** ()
- void **reset** ()

3.12.1 Detailed Description

Definition at line 6 of file neural_network_test.h.

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

- /home/michal/Desktop/aeris/src/q_learning/neural_network/neural_network_test.h
- /home/michal/Desktop/aeris/src/q_learning/neural_network/neural_network_test.cpp

3.13 CNeuron Class Reference

Public Member Functions

- **CNeuron** (u32 inputs_count, u32 type=NEURON_TYPE_COMMON, float weights_range=1.0, u32 order=1)
- float **get** ()
- std::vector< float > **get_error_input** ()
- float **process** (std::vector< float > input)
- void **learn** (float error, float lc=0.01)
- void **set_learning_pattern** (std::vector< float > lp)
- u32 **get_learning_pattern_size** ()
- void **print** ()
- **CNeuron** (u32 inputs_count, u32 type=NEURON_TYPE_COMMON, float weights_range=1.0, u32 order=1)
- float **get** ()
- std::vector< float > **get_error_input** ()
- float **process** (std::vector< float > input)
- void **learn** (float error, float lc=0.01)
- void **set_learning_pattern** (std::vector< float > lp)
- u32 **get_learning_pattern_size** ()
- void **print** ()
- **CNeuron** (u32 inputs_count, u32 type=NEURON_TYPE_COMMON, float weights_range=1.0, u32 order=1)
- float **get** ()
- std::vector< float > **get_error_input** ()
- float **process** (std::vector< float > input)
- void **learn** (float error, float lc=0.01)
- void **set_learning_pattern** (std::vector< float > lp)
- u32 **get_learning_pattern_size** ()
- void **print** ()
- **CNeuron** (u32 inputs_count, u32 type=NEURON_TYPE_COMMON, float weights_range=1.0, u32 order=1)
- float **get** ()
- std::vector< float > **get_error_input** ()
- float **process** (std::vector< float > input)
- void **learn** (float error, float lc=0.01)
- void **set_learning_pattern** (std::vector< float > lp)
- u32 **get_learning_pattern_size** ()
- void **print** ()
- **CNeuron** (u32 inputs_count, u32 type=NEURON_TYPE_COMMON, float weights_range=1.0, u32 order=1)
- float **get** ()
- std::vector< float > **get_error_input** ()
- float **process** (std::vector< float > input)
- void **learn** (float error, float lc=0.01)
- void **set_learning_pattern** (std::vector< float > lp)
- u32 **get_learning_pattern_size** ()
- void **print** ()
- **CNeuron** (u32 inputs_count, u32 type=NEURON_TYPE_COMMON, float weights_range=1.0, u32 order=1)

- float **get** ()
- std::vector< float > **get_error_input** ()
- float **process** (std::vector< float > input)
- void **learn** (float error, float lc=0.01)
- void **set_learning_pattern** (std::vector< float > lp)
- u32 **get_learning_pattern_size** ()
- void **print** ()
- **CNeuron** (u32 inputs_count, u32 type=NEURON_TYPE_COMMON, float weights_range=1.0, u32 order=1)
- float **get** ()
- std::vector< float > **get_error_input** ()
- float **process** (std::vector< float > input)
- void **learn** (float error, float lc=0.01)
- void **set_learning_pattern** (std::vector< float > lp)
- u32 **get_learning_pattern_size** ()
- void **print** ()

3.13.1 Detailed Description

Definition at line 11 of file neuron.h.

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

- /home/michal/Desktop/aeris/src/q_learning/neural_network/neuron.h
- /home/michal/Desktop/aeris/src/q_learning/neural_network/neuron.cpp

3.14 CQLearning Class Reference

Public Member Functions

- **CQLearning** (class CAction *actions, float gamma=0.9, float alpha=0.0)
- void **process** (u32 state, float reward)
- struct sAction **get_output** ()
- u32 **get_output_id** ()
- std::vector< std::vector< float > > **get_q** ()
- void **merge_q** (std::vector< std::vector< float >> q)

3.14.1 Detailed Description

Definition at line 7 of file q_learning.h.

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

- /home/michal/Desktop/aeris/src/q_learning/robot_brain/q_learning.h
- /home/michal/Desktop/aeris/src/q_learning/robot_brain/q_learning.cpp

3.15 CRobot Class Reference

Public Member Functions

- **CRobot** (struct sRobotInitStruct robot_init, std::vector< float > *initial_position=NULL)
- void **set_input** (std::vector< float > input)
- void **set_position** (std::vector< float > position)

- void **set_reward** (float reward=0.0)
- struct sAction **get_output_action** ()
- std::vector< float > **get_output** ()
- u32 **get_output_action_id** ()
- u32 **get_output_action_fitness** ()
- std::vector< float > **get_position** ()
- std::vector< float > **get_path** (u32 idx)
- u32 **get_state** ()
- u32 **get_type** ()
- void **reset** ()
- void **process** (float reward=0.0)
- void **print** ()
- void **merge_q** (std::vector< std::vector< float >> q)
- std::vector< std::vector< float > > **get_q** ()
- **CRobot** (struct sRobotInitStruct robot_init, std::vector< float > *initial_position=NULL)
- void **set_input** (std::vector< float > input)
- void **set_position** (std::vector< float > position)
- void **set_reward** (float reward=0.0)
- struct sAction **get_output_action** ()
- std::vector< float > **get_output** ()
- u32 **get_output_action_id** ()
- u32 **get_output_action_fitness** ()
- std::vector< float > **get_position** ()
- std::vector< float > **get_path** (u32 idx)
- u32 **get_state** ()
- u32 **get_type** ()
- void **reset** ()
- void **process** (float reward=0.0)
- void **print** ()
- void **merge_q** (std::vector< std::vector< float >> q)
- std::vector< std::vector< float > > **get_q** ()
- **CRobot** (u32 robot_type=ROBOT_TYPE_COMMON)
- void **main** ()
- **CRobot** (u32 robot_type=ROBOT_TYPE_COMMON)
- void **main** ()
- **CRobot** (u32 robot_type=ROBOT_TYPE_COMMON)
- void **main** ()
- **CRobot** (u32 robot_type=ROBOT_TYPE_COMMON)
- void **main** ()
- **CRobot** (u32 robot_type=ROBOT_TYPE_COMMON)
- void **main** ()
- **CRobot** (u32 robot_type=ROBOT_TYPE_COMMON)
- void **main** ()

3.15.1 Detailed Description

Definition at line 24 of file robot.h.

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

- /home/michal/Desktop/aeris/src/q_learning/robot_brain/robot.h
- /home/michal/Desktop/aeris/src/q_learning/robot_brain/robot.h~
- /home/michal/Desktop/aeris/src/q_learning/robot_brain/robot.cpp
- /home/michal/Desktop/aeris/src/q_learning/robot_brain/robot.cpp~

3.16 CRobotBrain Class Reference

Public Member Functions

- **CRobotBrain** (struct sRobot robot)
- void process (struct sRobot ∗robot)
- **CRobotBrain** (struct sRobot robot)
- void **process** (struct sRobot ∗robot)
- **CRobotBrain** (struct sRobot robot)
- void **process** (struct sRobot ∗robot)
- **CRobotBrain** (struct sRobot robot)
- void **process** (struct sRobot ∗robot)
- **CRobotBrain** (struct sRobot robot)
- void **process** (struct sRobot ∗robot)
- **CRobotBrain** (struct sRobot robot, class CCollectiveBrain ∗collective_brain=NULL)
- void **process** (struct sRobot ∗robot)

3.16.1 Detailed Description

Definition at line 7 of file robot_brain.h.

3.16.2 Member Function Documentation

3.16.2.1 void CRobotBrain::process (struct sRobot ∗ *robot*)

if (rand_() < (0.001 + dist∗0.01))

Definition at line 15 of file robot_brain.cpp.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/robot/robot_brain.h
- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/robot/robot_brain.cpp

3.17 CRobotTest Class Reference

Public Member Functions

- void **run** (u32 iterations=100)

3.17.1 Detailed Description

Definition at line 6 of file robot_test.h.

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

- /home/michal/Desktop/aeris/src/q_learning/robot_brain/robot_test.h
- /home/michal/Desktop/aeris/src/q_learning/robot_brain/robot_test.cpp

3.18 CServer Class Reference

Public Member Functions

- i32 **main** ()
- void **print** ()
- i32 **main** ()
- void **print** ()
- i32 **main** ()
- void **print** ()
- i32 **main** ()
- void **print** ()
- i32 **main** ()
- void **print** ()
- i32 **main** ()
- void **print** ()

3.18.1 Detailed Description

Definition at line 19 of file server.h.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/server.h
- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/server.cpp

3.19 CVisualisation Class Reference

Public Member Functions

- void **main** ()
- void **main** ()
- void **main** ()
- void **main** ()
- void **main** ()
- void **main** ()

3.19.1 Detailed Description

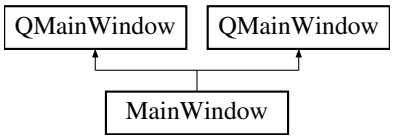
Definition at line 7 of file visualisation.h.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/visual/visualisation.h
- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/visual/visualisation.cpp

3.20 MainWindow Class Reference

Inheritance diagram for MainWindow:



Public Member Functions

- **MainWindow** (QWidget ∗parent=0)
- **MainWindow** (QWidget ∗parent=0)

Protected Member Functions

- void **mousePressEvent** (QMouseEvent ∗event)
- void **paintEvent** (QPaintEvent ∗)
- void **mousePressEvent** (QMouseEvent ∗event)
- void **paintEvent** (QPaintEvent ∗)

3.20.1 Detailed Description

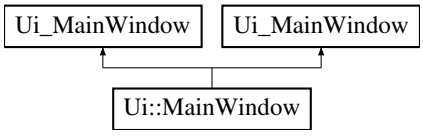
Definition at line 14 of file mainwindow.h.

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

- /home/michal/Desktop/aeris/src/map_editor/mainwindow.h
- /home/michal/Desktop/aeris/src/map_editor/mainwindow.cpp

3.21 Ui::MainWindow Class Reference

Inheritance diagram for Ui::MainWindow:



Additional Inherited Members

3.21.1 Detailed Description

Definition at line 363 of file ui_mainwindow.h.

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

- /home/michal/Desktop/aeris/src/map_editor/ui_mainwindow.h

3.22 qt_meta_stringdata_MainWindow_t Struct Reference

Public Attributes

- QByteArrayData **data** [31]
- char **stringdata** [777]

3.22.1 Detailed Description

Definition at line 21 of file moc_mainwindow.cpp.

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

- /home/michal/Desktop/aeris/src/map_editor/moc_mainwindow.cpp

3.23 sAction Struct Reference

Public Attributes

- float **fitness**
- std::vector< float > **action**

3.23.1 Detailed Description

Definition at line 9 of file action.h.

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

- /home/michal/Desktop/aeris/src/q_learning/robot_brain/action.h

3.24 sCFG Struct Reference

Public Attributes

- u32 **port**
- u64 **device_id**
- char **server_name** [SERVER_NAME_MAX_LENGTH+1]

3.24.1 Detailed Description

Definition at line 5 of file load_cfg.cpp.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/load_cfg.cpp

3.25 sDebugLog Struct Reference

Public Attributes

- char **file_name** [FILENAME_MAX+1]

- FILE * **fd**
- pthread_mutex_t **mutex**

3.25.1 Detailed Description

Definition at line 11 of file debug_log.h.

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

- /home/michal/Desktop/aeris/src/common/debug_log.h

3.26 sMap Struct Reference

Public Attributes

- u32 **magic**
- u32 **type**
- u32 **id**
- u32 **width**
- u32 **height**
- float **base_width**
- float **base_height**
- struct sMapField ** **fields**
- void * **next_info_ptr**

3.26.1 Detailed Description

Definition at line 46 of file map.h.

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

- /home/michal/Desktop/aeris/src/common/map.h

3.27 sMapField Struct Reference

Public Attributes

- u32 **type**
- u32 **id**
- u32 **texture_id**
- i32 **parameter_int**
- float **parameter_f**
- float **reward**
- float **position** [4]
- float **color** [4]
- void * **next_info_ptr**

3.27.1 Detailed Description

Definition at line 29 of file map.h.

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

- /home/michal/Desktop/aeris/src/common/map.h

3.28 sNeuralNetwork Struct Reference

Public Attributes

- u32 **layers_count**
- u32 **order**
- u32 * **size_input**
- u32 * **size_input_**
- u32 * **size_output**
- float **learning_constant**
- float **weight_range**
- float *** **w**
- float ** **output**
- float ** **error**
- float ** **input**
- float ** **input_**

3.28.1 Detailed Description

Definition at line 16 of file neural_network.h.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/robot/neural_network/neural_network.h

3.29 sNeuralNetworkInitStructure Struct Reference

Public Attributes

- u32 **init_vector_size**
- u32 * **init_vector**
- float **weight_range**
- float **learning_constant**
- u32 **order**
- u32 **neuron_type**

3.29.1 Detailed Description

Definition at line 6 of file neural_network.h.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/robot/neural_network/neural_network.h

3.30 sNNLayer Struct Reference

Public Attributes

- u32 **input_size**
- u32 **_input_size**
- u32 **output_size**
- u32 **order**

- float * **input**
- float * **_input**
- float ** **w**
- float * **output**
- float * **error**
- float **weight_range**
- u32 **neuron_type**

3.30.1 Detailed Description

Definition at line 6 of file nn.h.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/robot/neural_network/nn.h

3.31 sPoint3D Struct Reference

Public Attributes

- float **x**
- float **y**
- float **z**
- float **r**
- float **g**
- float **b**

3.31.1 Detailed Description

Definition at line 15 of file math.h.

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

- /home/michal/Desktop/aeris/src/common/math.h

3.32 sRobot Struct Reference

Public Attributes

- u64 **id**
- u32 **type**
- u32 **request**
- u32 **parameter**
- float **d** [ROBOT_SPACE_DIMENSION]
- float **position** [ROBOT_SPACE_DIMENSION]
- float **sensors** [ROBOT_SENSORS_COUNT]
- float **angles** [ROBOT_SPACE_DIMENSION]
- float **dt**
- double **time**
- i32 **parameter_int**
- float **parameter_f**
- float **reward**
- float **colision_distance**

3.32.1 Detailed Description

Definition at line 29 of file s_robot.h.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/robot/s_robot.h

3.33 sRobotInitStruct Struct Reference

Public Attributes

- u32 **inputs_count**
- u32 **outputs_count**
- u32 **actions_per_state**
- u32 **states_count**
- u32 **type**
- u32 **path_max_length**
- std::vector< float > **position_max**

3.33.1 Detailed Description

Definition at line 8 of file robot.h.

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

- /home/michal/Desktop/aeris/src/q_learning/robot_brain/robot.h
- /home/michal/Desktop/aeris/src/q_learning/robot_brain/robot.h~

3.34 sSquare Struct Reference

Public Attributes

- float **x**
- float **y**
- float **z**
- float **r**
- float **g**
- float **b**
- float **x_size**
- float **y_size**
- float **z_size**

3.34.1 Detailed Description

Definition at line 9 of file app_core.h.

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

- /home/michal/Desktop/aeris/src/map_editor/app_core.h

3.35 sVect3D Struct Reference

Public Attributes

- float **x**
- float **y**
- float **z**

3.35.1 Detailed Description

Definition at line 10 of file math.h.

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

- /home/michal/Desktop/aeris/src/common/math.h

3.36 sVector Struct Reference

Public Attributes

- float * **points**
- u32 **size**

3.36.1 Detailed Description

Definition at line 21 of file math.h.

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

- /home/michal/Desktop/aeris/src/common/math.h

3.37 sVisualisation Struct Reference

Public Attributes

- i32 **window_width**
- i32 **window_height**
- float **size**
- float **angle**
- float **ratio**
- float **position_max_x**
- float **position_max_y**
- float **position_max_z**
- u32 **view_state**
- std::thread * **rendering_thread_main_loop**
- std::vector< struct sRobot > **robots**
- std::mutex **mutex**
- float **base_size**

3.37.1 Detailed Description

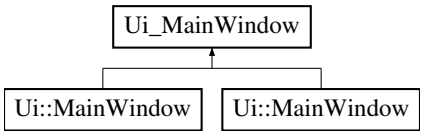
Definition at line 16 of file visualisation_gl.h.

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

- /home/michal/Desktop/aeris/src/virtual_robot/0.0.7/common/visualisation_gl.h

3.38 Ui_MainWindow Class Reference

Inheritance diagram for Ui_MainWindow:



Public Member Functions

- void **setupUi** (QMainWindow ∗MainWindow)
- void **retranslateUi** (QMainWindow ∗MainWindow)
- void **setupUi** (QMainWindow ∗MainWindow)
- void **retranslateUi** (QMainWindow ∗MainWindow)

Public Attributes

- QAction ∗ **actionOpen**
- QAction ∗ **actionSave**
- QAction ∗ **actionSave_as**
- QAction ∗ **actionClose**
- QAction ∗ **actionDelete**
- QAction ∗ **actionWall**
- QAction ∗ **actionRed_robot**
- QAction ∗ **actionRed_target**
- QAction ∗ **actionRed_path**
- QAction ∗ **actionGreen_robot**
- QAction ∗ **actionGreen_target**
- QAction ∗ **actionGreen_path**
- QAction ∗ **actionBlue_robot**
- QAction ∗ **actionBlue_target**
- QAction ∗ **actionBlue_path**
- QAction ∗ **actionPath**
- QAction ∗ **actionTarget**
- QAction ∗ **actionSource**
- QAction ∗ **actionDestination**
- QAction ∗ **actionNew**
- QWidget ∗ **centralWidget**
- QWidget ∗ **verticalLayoutWidget**
- QVBoxLayout ∗ **verticalLayout**
- QPushButton ∗ **pushButton**
- QPushButton ∗ **pushButton_2**
- QPushButton ∗ **pushButton_3**

- QPushButton * **pushButton_5**
- QPushButton * **pushButton_4**
- QWidget * **verticalLayoutWidget_2**
- QVBoxLayout * **verticalLayout_2**
- QPushButton * **pushButton_9**
- QPushButton * **pushButton_8**
- QPushButton * **pushButton_6**
- QPushButton * **pushButton_7**
- QWidget * **formLayoutWidget**
- QFormLayout * **formLayout**
- QLabel * **label**
- QLabel * **label_2**
- QDoubleSpinBox * **doubleSpinBox**
- QSpinBox * **spinBox**
- QDoubleSpinBox * **doubleSpinBox_2**
- QLabel * **label_3**
- QMenuBar * **menuBar**
- QMenu * **menuMap_editor**
- QMenu * **menuTools**
- QMenu * **menuRed_team**
- QMenu * **menuGreen_team**
- QMenu * **menuBlue_team**
- QToolBar * **mainToolBar**
- QStatusBar * **statusBar**
- QToolBar * **toolBar**
- QToolBar * **toolBar_2**

3.38.1 Detailed Description

Definition at line 32 of file ui_mainwindow.h.

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

- /home/michal/Desktop/aeris/src/map_editor/ui_mainwindow.h

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