GR-Router

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

child
    gr::router::child_impl 5
EthernetConnector 5
NetworkInterface 6
Node 6
qa_router 6
queue_sink
    gr::router::queue_sink_impl 7
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throughput
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Chapter 2

Class Index

2.1 Class List

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

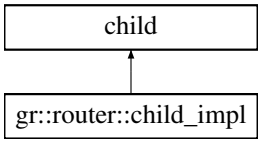
gr::router::child_impl 5
EthernetConnector 5
NetworkInterface 6
Node 6
qa_router
Collect all the tests for the gr-filter directory 6
gr::router::queue_sink_byte_impl 7
gr::router::queue_sink_impl 7
gr::router::queue_source_byte_impl 7
gr::router::queue_source_impl 8
gr::router::root_impl 8
gr::router::throughput_impl 9
gr::router::throughput_sink_impl 9

Chapter 3

Class Documentation

3.1 gr::router::child_impl Class Reference

Inheritance diagram for gr::router::child_impl:



Public Member Functions

- **child_impl** (int number_of_children, int child_index, char ∗hostname, boost::lockfree::queue< std::vector< float > ∗, boost::lockfree::fixed_sized< true > > &in_queue, boost::lockfree::queue< std::vector< char > ∗, boost::lockfree::fixed_sized< true > > &out_queue, double throughput)
- int **work** (int noutput_items, gr_vector_const_void_star &input_items, gr_vector_void_star &output_items)

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

- lib/child_impl.h
- lib/child_impl.cc

3.2 EthernetConnector Class Reference

Public Member Functions

- **EthernetConnector** (int number_of_children, int port)
- bool **connect_to_parent** (char ∗hostname, int port)
- int **write_parent** (char ∗msg, int size)
- int **read_parent** (char ∗outbuf, int size)
- bool **connect_to_child** (int index, int port)
- int **write_child** (int index, char ∗inbuf, unsigned long size)
- int **read_child** (int index, char ∗outbuf, int size)
- void **stop** ()

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

- lib/EthernetConnector.h
- lib/EthernetConnector.cc

3.3 NetworkInterface Class Reference

Public Member Functions

- **NetworkInterface** (int itemsize, int children, int port, bool root)
- bool **connect** (char ∗parent_hostname)
- int **receive** (int child_index, char ∗outbuf, int noutput_items)
- int **send** (int child_index, char ∗msg, int num)

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

- lib/NetworkInterface.h
- lib/NetworkInterface.cc

3.4 Node Class Reference

Public Attributes

- int **socket_fd**
- int **port**
- sockaddr_in **address**
- hostent ∗ **host**
- socklen_t **length**

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

- lib/EthernetConnector.h

3.5 qa_router Class Reference

collect all the tests for the gr-filter directory

`#include <qa_router.h>`

Static Public Member Functions

- static CppUnit::TestSuite ∗ suite ()

  return suite of tests for all of gr-filter directory

3.5.1 Detailed Description

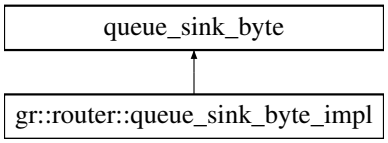
collect all the tests for the gr-filter directory

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

- lib/qa_router.h
- lib/qa_router.cc

3.6 gr::router::queue_sink_byte_impl Class Reference

Inheritance diagram for gr::router::queue_sink_byte_impl:



Public Member Functions

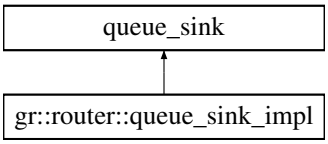
- **queue_sink_byte_impl** (int item_size, boost::lockfree::queue< std::vector< char > *, boost::lockfree::fixed_sized< true > > &shared_queue, bool preserve_index)
- int **work** (int noutput_items, gr_vector_const_void_star &input_items, gr_vector_void_star &output_items)

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

- lib/queue_sink_byte_impl.h
- lib/queue_sink_byte_impl.cc

3.7 gr::router::queue_sink_impl Class Reference

Inheritance diagram for gr::router::queue_sink_impl:



Public Member Functions

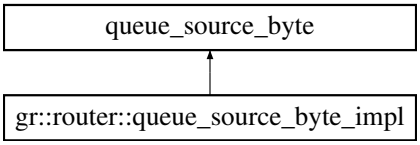
- **queue_sink_impl** (int item_size, boost::lockfree::queue< std::vector< float > *, boost::lockfree::fixed_sized< true > > &shared_queue, bool preserve_index)
- int **work** (int noutput_items, gr_vector_const_void_star &input_items, gr_vector_void_star &output_items)

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

- lib/queue_sink_impl.h
- lib/queue_sink_impl.cc

3.8 gr::router::queue_source_byte_impl Class Reference

Inheritance diagram for gr::router::queue_source_byte_impl:



Public Member Functions

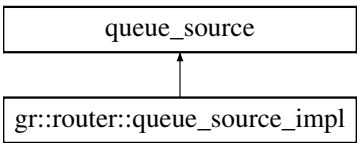
- **queue_source_byte_impl** (int size, boost::lockfree::queue< std::vector< char > *, boost::lockfree::fixed_sized< true > > &shared_queue, bool preserve_index, bool order)
- int **work** (int noutput_items, gr_vector_const_void_star &input_items, gr_vector_void_star &output_items)

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

- lib/queue_source_byte_impl.h
- lib/queue_source_byte_impl.cc

3.9 gr::router::queue_source_impl Class Reference

Inheritance diagram for gr::router::queue_source_impl:



Public Member Functions

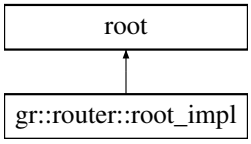
- **queue_source_impl** (int size, boost::lockfree::queue< std::vector< float > *, boost::lockfree::fixed_sized< true > > &shared_queue, bool preserve_index, bool order)
- int **work** (int noutput_items, gr_vector_const_void_star &input_items, gr_vector_void_star &output_items)

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

- lib/queue_source_impl.h
- lib/queue_source_impl.cc

3.10 gr::router::root_impl Class Reference

Inheritance diagram for gr::router::root_impl:



Public Member Functions

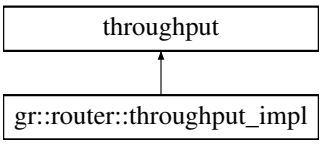
- **root_impl** (int number_of_children, boost::lockfree::queue< std::vector< float > *, boost::lockfree::fixed_sized< true > > &in_queue, boost::lockfree::queue< std::vector< char > *, boost::lockfree::fixed_sized< true > > &out_queue, double throughput)
- int **work** (int noutput_items, gr_vector_const_void_star &input_items, gr_vector_void_star &output_items)

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

- lib/root_impl.h
- lib/root_impl.cc

3.11 gr::router::throughput_impl Class Reference

Inheritance diagram for gr::router::throughput_impl:



Public Member Functions

- throughput_impl (size_t itemsize, int print_counter, int index)
- int work (int noutput_items, gr_vector_const_void_star &input_items, gr_vector_void_star &output_items)

3.11.1 Constructor & Destructor Documentation

3.11.1.1 gr::router::throughput_impl::throughput_impl (size_t *itemsize,* int *print_counter,* int *index*)

This is the private constructor for the throughput block

Parameters

itemsize	The size (in bytes) of the data being measured
print_counter	The number of work() calls between prints of throughput value
index	How many tabs in front of the throughput value to space them

3.11.2 Member Function Documentation

3.11.2.1 int gr::router::throughput_impl::work (int *noutput_items,* gr_vector_const_void_star & *input_items,* gr_vector_void_star & *output_items*)

This is the throughput

Parameters

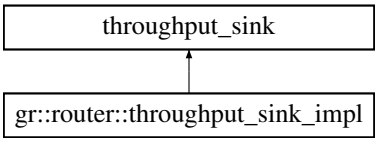
noutput_items	The number of data samples
&input_items	
&output_items	

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

- lib/throughput_impl.h
- lib/throughput_impl.cc

3.12 gr::router::throughput_sink_impl Class Reference

Inheritance diagram for gr::router::throughput_sink_impl:



Public Member Functions

- **throughput_sink_impl** (size_t itemsize, int print_counter, int index)
- int **work** (int noutput_items, gr_vector_const_void_star &input_items, gr_vector_void_star &output_items)

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

- lib/throughput_sink_impl.h
- lib/throughput_sink_impl.cc

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