Rematch

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Chapter 1

Namespace Index

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Chapter 2

Class Index

2.1 Class List

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

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rematch::NodeManager	17

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3.1 File List

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src/rematch/ecs/node manager.hpp	29

6 File Index

Chapter 4

Namespace Documentation

4.1 rematch Namespace Reference

Classes

- class ECS
- class ECSNode
- class Enumerator
- class MiniPool
- class NodeManager

Enumerations

• enum ECSNodeType { ECSNodeType::kBottom = 0, ECSNodeType::kUnion = 1, ECSNodeType::kLabel = 2 }

Functions

• std::ostream & operator<< (std::ostream &os, const ECSNode &n)

Variables

• const size_t MEMORY_POOL_STARTING_SIZE = 2048

4.1.1 Enumeration Type Documentation

4.1.1.1 ECSNodeType

Enumerator

kBottom	
kUnion	
kLabel	

4.1.2 Function Documentation

4.1.2.1 operator<<()

4.1.3 Variable Documentation

4.1.3.1 MEMORY_POOL_STARTING_SIZE

```
const size_t rematch::MEMORY_POOL_STARTING_SIZE = 2048
```

Chapter 5

Class Documentation

5.1 rematch::ECS Class Reference

```
#include <ecs.hpp>
```

Public Member Functions

- size_t get_amount_of_nodes_used () const
- size_t amount_of_nodes_allocated () const
- ECS ()=default
- ECSNode * create_bottom_node ()
- ECSNode * create_extend_node (ECSNode *node, std::bitset< 64 > variable_markers, int document_← position)
- ECSNode * create_union_node (ECSNode *node_1, ECSNode *node_2)
- ECSNode * pin_node (ECSNode *node)
- void unpin_node (ECSNode *node)

5.1.1 Constructor & Destructor Documentation

5.1.1.1 ECS()

```
rematch::ECS::ECS ( ) [default]
```

5.1.2 Member Function Documentation

10 Class Documentation

5.1.2.1 amount_of_nodes_allocated()

```
size_t rematch::ECS::amount_of_nodes_allocated ( ) const [inline]
```

5.1.2.2 create_bottom_node()

```
ECSNode * rematch::ECS::create_bottom_node ( )
```

5.1.2.3 create_extend_node()

5.1.2.4 create_union_node()

5.1.2.5 get_amount_of_nodes_used()

```
size_t rematch::ECS::get_amount_of_nodes_used ( ) const
```

5.1.2.6 pin_node()

5.1.2.7 unpin_node()

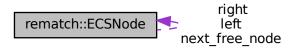
The documentation for this class was generated from the following files:

- src/rematch/ecs/ecs.hpp
- src/rematch/ecs/ecs.cpp

5.2 rematch::ECSNode Class Reference

```
#include <ecs_node.hpp>
```

Collaboration diagram for rematch::ECSNode:



Public Member Functions

- ECSNode (ECSNodeType node_type, ECSNode *left=nullptr, ECSNode *right=nullptr, std::bitset< 64 > variable_markers=0, int document_position=0)
- ECSNode * reset (ECSNodeType node_type, ECSNode *left=nullptr, ECSNode *right=nullptr, std::bitset < 64 > variable_markers=0, int document_position=0)
- bool is_output () const
- bool is_bottom () const
- ECSNode * left_node () const
- ECSNode * right_node () const
- ECSNode * next () const

Public Attributes

```
    std::bitset< 64 > variable_markers
    ECSNode * left = nullptr
    union {
        ECSNode * right = nullptr
        int document_position
    };
```

- ECSNodeType type
- int ref_count {1}
- ECSNode * next_free_node

Friends

- class NodeManager
- std::ostream & operator<< (std::ostream &os, const ECSNode &n)

5.2.1 Constructor & Destructor Documentation

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5.2.1.1 ECSNode()

5.2.2 Member Function Documentation

5.2.2.1 is_bottom()

```
bool rematch::ECSNode::is_bottom ( ) const
```

5.2.2.2 is_output()

```
bool rematch::ECSNode::is_output ( ) const
```

5.2.2.3 left_node()

```
ECSNode* rematch::ECSNode::left_node ( ) const [inline]
```

5.2.2.4 next()

```
ECSNode* rematch::ECSNode::next ( ) const [inline]
```

5.2.2.5 reset()

5.2.2.6 right_node()

```
ECSNode* rematch::ECSNode::right_node ( ) const [inline]
```

5.2.3 Friends And Related Function Documentation

5.2.3.1 NodeManager

```
friend class NodeManager [friend]
```

5.2.3.2 operator<<

```
std::ostream& operator<< (
          std::ostream & os,
          const ECSNode & n ) [friend]</pre>
```

5.2.4 Member Data Documentation

5.2.4.1 "@1

```
union { ... }
```

5.2.4.2 document_position

```
int rematch::ECSNode::document_position
```

5.2.4.3 left

```
ECSNode* rematch::ECSNode::left = nullptr
```

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5.2.4.4 next_free_node

```
ECSNode* rematch::ECSNode::next_free_node
```

5.2.4.5 ref_count

```
int rematch::ECSNode::ref_count {1}
```

5.2.4.6 right

```
ECSNode* rematch::ECSNode::right = nullptr
```

5.2.4.7 type

```
ECSNodeType rematch::ECSNode::type
```

5.2.4.8 variable_markers

```
std::bitset<64> rematch::ECSNode::variable_markers
```

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

- src/rematch/ecs/ecs_node.hpp
- src/rematch/ecs/ecs_node.cpp

5.3 rematch::Enumerator Class Reference

```
#include <enumerator.hpp>
```

Public Member Functions

- Enumerator (RegEx &r, std::string_view document)
- void add_node (ECS::Node *n)
- bool has_next () const
- Match_ptr next ()

5.3.1 Constructor & Destructor Documentation

5.3.1.1 Enumerator()

5.3.2 Member Function Documentation

5.3.2.1 add_node()

5.3.2.2 has_next()

```
bool rematch::Enumerator::has_next ( ) const [inline]
```

5.3.2.3 next()

```
Match_ptr rematch::Enumerator::next ( )
```

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

- src/rematch/ecs/enumerator.hpp
- src/rematch/ecs/enumerator.cpp

5.4 rematch::MiniPool Class Reference

```
#include <minipool.hpp>
```

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Public Member Functions

```
    MiniPool (size_t cap)
```

- size_t capacity () const
- size_t size () const
- bool is_full () const
- MiniPool * next () const
- void set_next (MiniPool *mp)
- MiniPool * prev () const
- void set_prev (MiniPool *mp)
- template < class... Args >
 ECSNode * alloc (Args... args)

5.4.1 Constructor & Destructor Documentation

5.4.1.1 MiniPool()

5.4.2 Member Function Documentation

5.4.2.1 alloc()

5.4.2.2 capacity()

```
size_t rematch::MiniPool::capacity ( ) const
```

5.4.2.3 is_full()

```
bool rematch::MiniPool::is_full ( ) const
```

5.4.2.4 next()

```
MiniPool * rematch::MiniPool::next ( ) const
```

5.4.2.5 prev()

```
MiniPool * rematch::MiniPool::prev ( ) const
```

5.4.2.6 set_next()

5.4.2.7 set_prev()

5.4.2.8 size()

```
size_t rematch::MiniPool::size ( ) const
```

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

- src/rematch/ecs/minipool.hpp
- src/rematch/ecs/minipool.cpp

5.5 rematch::NodeManager Class Reference

```
#include <node_manager.hpp>
```

Public Member Functions

- size_t amount_of_nodes_allocated () const
- NodeManager (size_t starting_size=MEMORY_POOL_STARTING_SIZE)
- template<class... Args>

```
ECSNode * alloc (Args &&...args)
```

- void decrease ref count (ECSNode *node)
- void increase_ref_count (ECSNode *node)
- void add_to_list_of_free_memory (ECSNode *node)
- size_t get_amount_of_nodes_used () const
- std::string print_list_of_free_memory ()

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Public Attributes

```
size_t amount_of_nodes_used {0}size_t amount_of_recycled_nodes {0}
```

5.5.1 Constructor & Destructor Documentation

5.5.1.1 NodeManager()

5.5.2 Member Function Documentation

5.5.2.1 add_to_list_of_free_memory()

5.5.2.2 alloc()

5.5.2.3 amount_of_nodes_allocated()

```
\verb|size_t rematch:: NodeManager:: amount_of_nodes_allocated ( ) const|\\
```

5.5.2.4 decrease_ref_count()

5.5.2.5 get_amount_of_nodes_used()

```
size_t rematch::NodeManager::get_amount_of_nodes_used ( ) const [inline]
```

5.5.2.6 increase_ref_count()

5.5.2.7 print_list_of_free_memory()

```
std::string rematch::NodeManager::print_list_of_free_memory ( )
```

5.5.3 Member Data Documentation

5.5.3.1 amount_of_nodes_used

```
size_t rematch::NodeManager::amount_of_nodes_used {0}
```

5.5.3.2 amount_of_recycled_nodes

```
size_t rematch::NodeManager::amount_of_recycled_nodes {0}
```

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

- src/rematch/ecs/node_manager.hpp
- src/rematch/ecs/node_manager.cpp

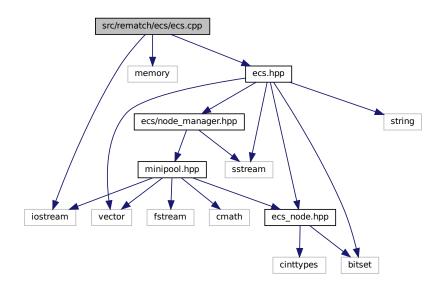
20 Class Documentation

Chapter 6

File Documentation

6.1 src/rematch/ecs/ecs.cpp File Reference

```
#include <iostream>
#include <memory>
#include "ecs.hpp"
Include dependency graph for ecs.cpp:
```

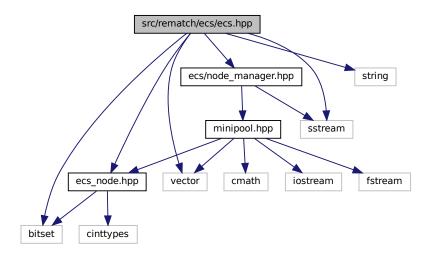


Namespaces

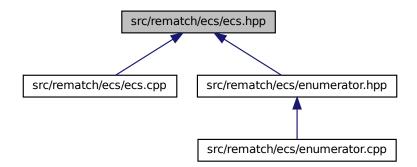
22 File Documentation

6.2 src/rematch/ecs/ecs.hpp File Reference

```
#include <bitset>
#include <sstream>
#include <string>
#include <vector>
#include "ecs/node_manager.hpp"
#include "ecs_node.hpp"
Include dependency graph for ecs.hpp:
```



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



Classes

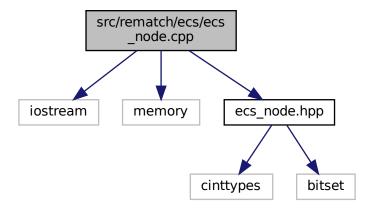
• class rematch::ECS

Namespaces

· rematch

6.3 src/rematch/ecs/ecs_node.cpp File Reference

```
#include <iostream>
#include <memory>
#include "ecs_node.hpp"
Include dependency graph for ecs_node.cpp:
```



Namespaces

rematch

Functions

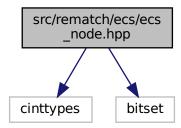
• std::ostream & rematch::operator<< (std::ostream &os, const ECSNode &n)

6.4 src/rematch/ecs/ecs_node.hpp File Reference

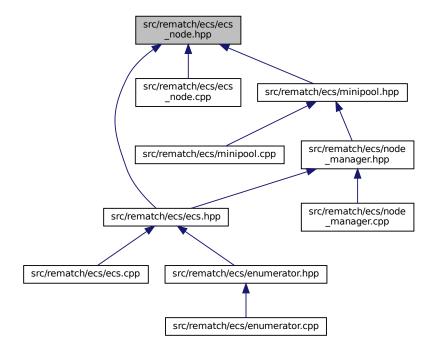
```
#include <cinttypes>
#include <bitset>
```

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Include dependency graph for ecs_node.hpp:



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



Classes

· class rematch::ECSNode

Namespaces

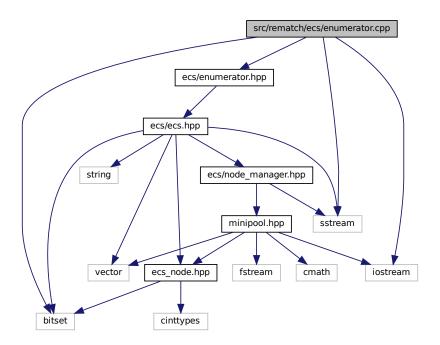
rematch

Enumerations

enum rematch::ECSNodeType { rematch::ECSNodeType::kBottom = 0, rematch::ECSNodeType::kUnion = 1, rematch::ECSNodeType::kLabel = 2 }

6.5 src/rematch/ecs/enumerator.cpp File Reference

```
#include "ecs/enumerator.hpp"
#include <bitset>
#include <iostream>
#include <sstream>
Include dependency graph for enumerator.cpp:
```



Namespaces

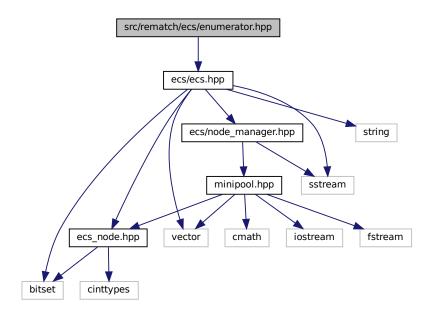
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6.6 src/rematch/ecs/enumerator.hpp File Reference

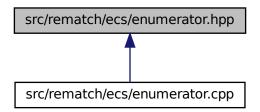
#include "ecs/ecs.hpp"

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Include dependency graph for enumerator.hpp:



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



Classes

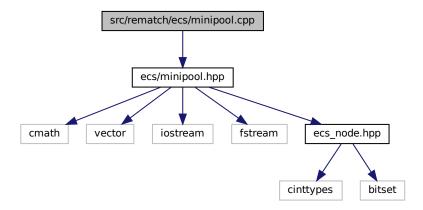
• class rematch::Enumerator

Namespaces

rematch

6.7 src/rematch/ecs/minipool.cpp File Reference

#include "ecs/minipool.hpp"
Include dependency graph for minipool.cpp:

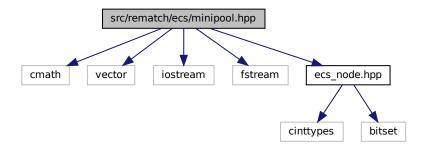


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· rematch

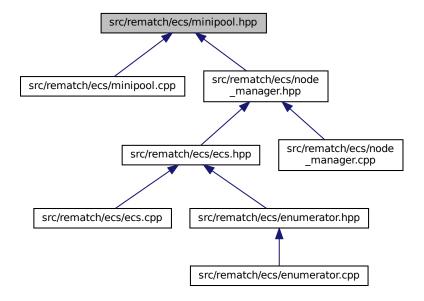
6.8 src/rematch/ecs/minipool.hpp File Reference

```
#include <cmath>
#include <vector>
#include <iostream>
#include <fstream>
#include "ecs_node.hpp"
Include dependency graph for minipool.hpp:
```



28 File Documentation

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



Classes

· class rematch::MiniPool

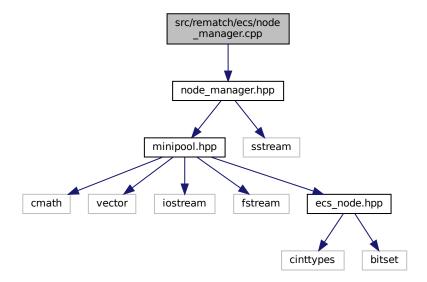
Namespaces

· rematch

6.9 src/rematch/ecs/node_manager.cpp File Reference

#include "node_manager.hpp"

Include dependency graph for node_manager.cpp:

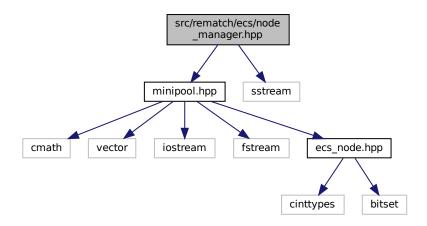


Namespaces

· rematch

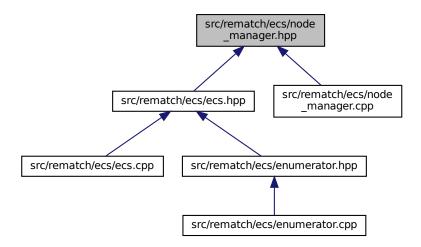
6.10 src/rematch/ecs/node_manager.hpp File Reference

```
#include "minipool.hpp"
#include <sstream>
Include dependency graph for node_manager.hpp:
```



30 File Documentation

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



Classes

• class rematch::NodeManager

Namespaces

rematch

Variables

• const size_t rematch::MEMORY_POOL_STARTING_SIZE = 2048

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