Grade Reporter Reference Manual

Generated by Doxygen 1.3.9.1

Mon Jan 24 19:48:54 2005

Contents

Chapter 1

Grade Reporter Namespace Index

1.1 Grade Reporter Namespace List

Here is a list of all namespaces with brief descriptions:

Chapter 2

Grade Reporter File Index

2.1 Grade Reporter File List

Here is a list of all files with brief descriptions:

Chapter 3

Grade Reporter Namespace Documentation

3.1 gradereporter Namespace Reference

Functions

- std::vector< std::string > **LineToVector** (std::ifstream *inData-Stream)

  reads a line and splits it at tab characters

- std::string **StripDash** (const std::string &inString)

  strips dashes off the beginning and ends of the string

- std::string **GradeReportPage** ()
- std::string **HistographPage** ()

3.1.1 Function Documentation

3.1.1.1 std::string GradeReportPage ()

Referenced by main().

3.1.1.2 std::string HistographPage ()

Referenced by main().

3.1.1.3 std::vector<std::string> LineToVector (std::ifstream ∗ *inDataStream*)

reads a line and splits it at tab characters

3.1.1.4 std::string StripDash (const std::string & *inString*)

strips dashes off the beginning and ends of the string

Referenced by GenerateReply(), and GenerateTable().

Chapter 4

Grade Reporter File Documentation

4.1 common.cp File Reference

Methods common to both **GradeReportPage()**(p. 5) and **Histograph-Page()**(p. 5).

```
#include "common.h"
```

```
#include <string>
```

```
#include <vector>
```

```
#include <fstream>
```

```
#include <sstream>
```

Include dependency graph for common.cp:
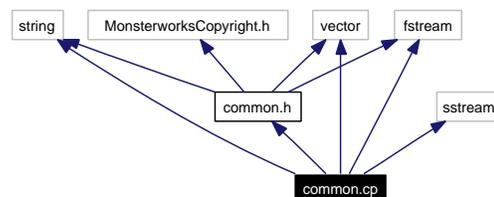
Defines

- #define **GR** gradereporter

making things easier to read while keeping doxygen informed

4.1.1 Detailed Description

Methods common to both **GradeReportPage()**(p. 5) and **Histograph-Page()**(p. 5).

Author
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Date
> 2004/03/04 02:53:24

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Definition in file **common.cp**.

4.1.2 Define Documentation

4.1.2.1 #define GR gradereporter

making things easier to read while keeping doxygen informed

Definition at line 24 of file common.cp.

4.2   common.h File Reference

Methods to handle the data file used in both **GradeReportPage()**(p. 5) and **HistographPage()**(p. 5).

#include <MonsterworksCopyright.h>

#include <string>

#include <vector>

#include <fstream>

Include dependency graph for common.h:
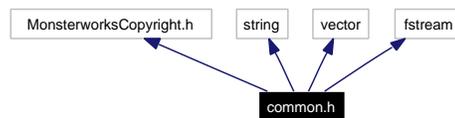
This graph shows which files directly or indirectly include this file:
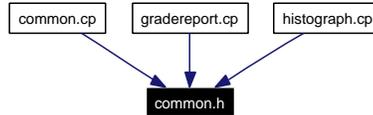
Namespaces

- namespace **gradereporter**

Functions

- std::vector< std::string > **LineToVector** (std::ifstream *inData-Stream)

    reads a line and splits it at tab characters

- std::string **StripDash** (const std::string &inString)

    strips dashes off the beginning and ends of the string

4.2.1 Detailed Description

Methods to handle the data file used in both **GradeReportPage()**(p. 5) and **HistographPage()**(p. 5).

Author
    eeyore

Date
    2004/03/06 04:18:11

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Definition in file **common.h**.

4.2.2 Function Documentation

4.2.2.1 std::vector<std::string> LineToVector (std::ifstream * *inDataStream*)

reads a line and splits it at tab characters

### 4.2.2.2 std::string StripDash (const std::string & *inString*)

strips dashes off the beginning and ends of the string

Referenced by GenerateReply(), and GenerateTable().

4.3   gradereport.cp File Reference

```
#include "gradereport.h"
```

```
#include "common.h"
```

```
#include <XCGI.h>
```

```
#include <NWWWCodec.h>
```

```
#include <NEnvironment.h>
```

```
#include <NForm.h>
```

```
#include <NHTMLWriter.h>
```

```
#include <string>
```

```
#include <vector>
```

```
#include <limits>
```

```
#include <sstream>
```

```
#include <fstream>
```

```
#include <iostream>
```

Include dependency graph for gradereport.cp:
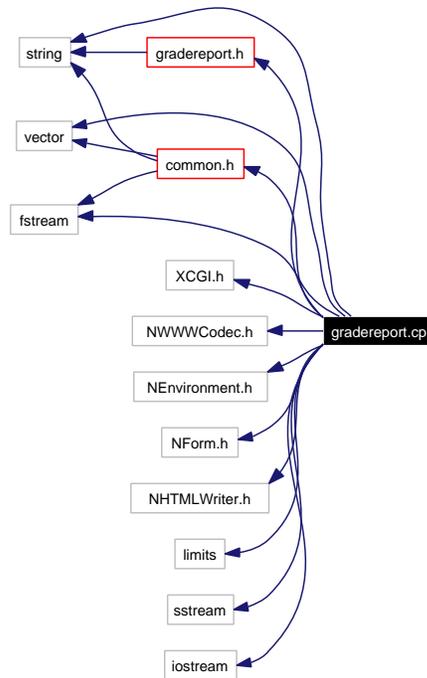
Defines

- #define **MW_CGI** monsterworks::cgi

  keeping names short and doxygen informed

- #define **GR** gradereporter

  keeping names short and doxygen informed

Functions

- string **MungeLogin** (const string &inLogin)

  munges the login to handle capitalization and non-alphanumeric characters

- string **MungePassword** (const string &inPass)

  munges the password to handle capitalization and non-alphanumeric characters

- string **GenerateReply** (int inStart, const vector< string > &inHeaders, const vector< string > &inData, const string &inContact)

generates the HTML reply once the information has been gathered

- string **GenerateTable** (unsigned int ∗ioStartP, const vector< string > &inHeaders, const vector< string > &inData)

    generates a table of grades

- string **MungeLogin** (const string &inLogin)
- string **MungePassword** (const string &inPassword)
- string **GenerateReply** (int inStart, const vector< string > &inHeaders, const vector< string > &inData, const string &inContact)
- string **GenerateTable** (unsigned int ∗ioStartP, const vector< string > &inHeaders, const vector< string > &inData)

Variables

- const bool **kShowData** = false

    if set to true, trace information will be returned in the HTML page

4.3.1   Define Documentation

4.3.1.1   #define GR gradereporter

keeping names short and doxygen informed

Definition at line 26 of file gradereport.cp.

4.3.1.2   #define MW_CGI monsterworks::cgi

keeping names short and doxygen informed

Definition at line 24 of file gradereport.cp.

4.3.2   Function Documentation

4.3.2.1   string GenerateReply (int *inStart*, const vector< string > & *inHeaders*, const vector< string > & *inData*, const string & *inContact*) [static]

Definition at line 280 of file gradereport.cp.

References GenerateTable(), and gradereporter::StripDash().

4.3.2.2 **string GenerateReply (int *inStart*, const vector< string > & *inHeaders*, const vector< string > & *inData*, const string & *inContact*) [static]**

generates the HTML reply once the information has been gathered

4.3.2.3 **string GenerateTable (unsigned int * *ioStartP*, const vector< string > & *inHeaders*, const vector< string > & *inData*) [static]**

Definition at line 329 of file gradereport.cp.

References gradereporter::StripDash().

Referenced by GenerateReply().

4.3.2.4 **string GenerateTable (unsigned int * *ioStartP*, const vector< string > & *inHeaders*, const vector< string > & *inData*) [static]**

generates a table of grades

4.3.2.5 **string MungeLogin (const string & *inLogin*) [static]**

Definition at line 238 of file gradereport.cp.

4.3.2.6 **string MungeLogin (const string & *inLogin*) [static]**

munges the login to handle capitalization and non-alphanumeric characters

4.3.2.7 **string MungePassword (const string & *inPassword*) [static]**

Definition at line 256 of file gradereport.cp.

4.3.2.8 **string MungePassword (const string & *inPass*) [static]**

munges the password to handle capitalization and non-alphanumeric characters

4.3.3 Variable Documentation

4.3.3.1 const bool kShowData = false [static]

if set to true, trace information will be returned in the HTML page

Definition at line 58 of file gradereport.cp.

4.4 gradereport.h File Reference

Methods to provide a page with grade report information.

#include <MonsterworksCopyright.h>

#include <string>

Include dependency graph for gradereport.h:
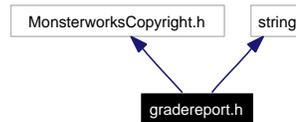
This graph shows which files directly or indirectly include this file:
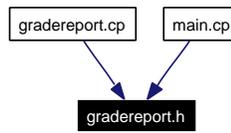
Namespaces

- namespace **gradereporter**

Functions

- std::string **GradeReportPage** ()

4.4.1 Detailed Description

Methods to provide a page with grade report information.

Author
    eeyore

Date
    2004/10/15 06:12:25

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Definition in file **gradereport.h**.

4.4.2 Function Documentation

### 4.4.2.1 std::string GradeReportPage ()

Referenced by main().

4.5   histograph.cp File Reference

Methods to handle generation of a histograph based on grade information.

`#include "histograph.h"`

`#include "common.h"`

`#include <XCGI.h>`

`#include <NForm.h>`

`#include <NHTMLWriter.h>`

`#include <NWWWCodec.h>`

`#include <string>`

`#include <vector>`

`#include <cstdlib>`

`#include <sstream>`

`#include <fstream>`

`#include <cmath>`

Include dependency graph for histograph.cp:
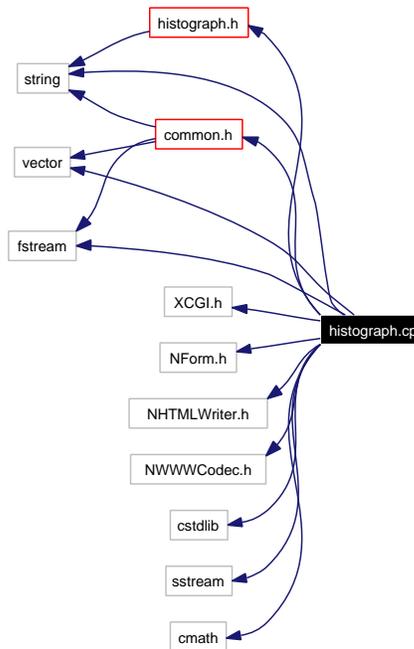
Defines

- #define **MW_CGI** monsterworks::cgi

    making our code more readable and keeping doxygen informed

- #define **GR** gradereporter

    making our code more readable and keeping doxygen informed

Functions

- int **Rank** (int inValue, int inMax)

    determines the percentile range into which the value fits

- float **Median** (vector< int > inData, int inStart, int inEnd, bool preSorted=true)

    determines the median value of a slice of data

- string **GenerateReply** (const string &inTitle, vector< int > inScores, int inMax)

    generates the page given the information

- int **Rank** (int inValue, int inMax)
- float **Median** (vector< int > inData, int inStart, int inEnd, bool inPresorted)
- string **GenerateReply** (const string &inTitle, vector< int > inData, int inMax)

4.5.1 Detailed Description

Methods to handle generation of a histograph based on grade information.

Author

 eeyore

Date

 2004/10/15 06:12:25

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Definition in file **histograph.cp**.

4.5.2   Define Documentation

4.5.2.1   #define GR gradereporter

making our code more readable and keeping doxygen informed

Definition at line 27 of file histograph.cp.

4.5.2.2   #define MW_CGI monsterworks::cgi

making our code more readable and keeping doxygen informed

Definition at line 25 of file histograph.cp.

4.5.3   Function Documentation

4.5.3.1   string GenerateReply (const string & *inTitle*, vector< int > *inData*, int *inMax*)   [static]

Returns:
> the histograph page as a string

Parameters:
> *inTitle* the title for the page
>
> *inData* the data to be displayed
>
> *inMax* maximum possible value for the scores

Definition at line 247 of file histograph.cp.

References Median(), and Rank().

4.5.3.2   string GenerateReply (const string & *inTitle*, vector< int > *inScores*, int *inMax*)   [static]

generates the page given the information

4.5.3.3 float Median (vector< int > *inData*, int *inStart*, int *inEnd*, bool *inPresorted*) [static]

Since the data needs to be sorted, and Median may be called multiple times on the same data, presorting the vector and then setting inPresorted to true will probably be more efficient than having Median sort the vector everytime it is called.

Returns:
the median value of the data values in the range [inStart, inEnd)

Parameters:
inData the data to work with

inStart starting position of slice

inEnd ending position of slice (not included in median)

inPresorted if false, we will sort the vector here

Definition at line 221 of file histograph.cp.

Referenced by GenerateReply().

4.5.3.4 float Median (vector< int > *inData*, int *inStart*, int *inEnd*, bool *preSorted* = true) [static]

determines the median value of a slice of data

4.5.3.5 int Rank (int *inValue*, int *inMax*) [static]

Determines the rank of the value.

If the maximum value is under 20, we just return the value (rather than converting to percentages).

If the maximum value is over 20, then we give the percentile ranking:

Percentile Range	Rank
[0,10)	0
[10,20)	1
[20,30)	2
[30,40)	3
[40,50)	4
[50,60)	5
[60,70)	6
[70,80)	7
[80,90)	8
[90,100)	9
[100,infty)	10

Returns:
the rank

Exceptions:
XConfiguration error if inValue is below 0

Parameters:
inValue the value to be ranked

inMax the maximum value possible

Definition at line 183 of file histograph.cp.

Referenced by GenerateReply().

4.5.3.6 int Rank (int *inValue*, int *inMax*) [static]

determines the percentile range into which the value fits

4.6 histograph.h File Reference

Methods to handle generation of a histograph based on grade information.

`#include <MonsterworksCopyright.h>`

`#include <string>`

Include dependency graph for histograph.h:
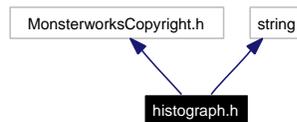
This graph shows which files directly or indirectly include this file:
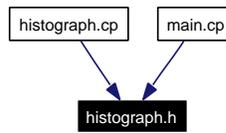
Namespaces

- namespace **gradereporter**

Functions

- std::string **HistographPage** ()

4.6.1 Detailed Description

Methods to handle generation of a histograph based on grade information.

Author
    eeyore

Date
    2004/10/15 06:13:35

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Definition in file **histograph.h**.

4.6.2   Function Documentation

4.6.2.1   std::string HistographPage ()

Referenced by main().

4.7 main.cp File Reference

#include <NCapture.h>

#include <NEnvironment.h>

#include "gradereport.h"

#include "histograph.h"

#include <string>

#include <iostream>

Include dependency graph for main.cp:
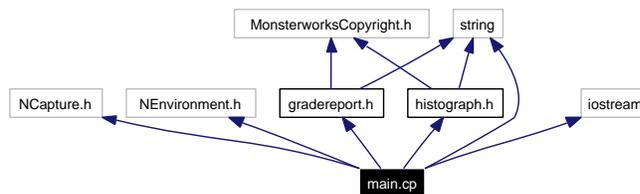
Functions

- int **main** (int argc, char *argv[ ], char *env[ ])

4.7.1 Function Documentation

4.7.1.1 int main (int *argc*, char * *argv*[ ], char * *env*[ ])

Definition at line 18 of file main.cp.

References gradereporter::GradeReportPage(), and gradereporter::Histograph-Page().

Index