XenC

1.1.0

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5.1 XenCommon Namespace Reference

Namespace containing all the common functions of XenC.

Classes

- struct XenCEption

  XenC exception structure.
- class Splitter

  Class defining a splitter.

Functions

- template<typename T >
  std::string toString (const T &Value)

  Template converting a value into a string with a precision of 20.
- template<typename T >
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  Template converting a value into a string with no precision.
- template<typename T >
  int toInt (const T &Value)

  Template converting a value (generally a string) into an integer.
- template<typename T >
  double toDouble (const T &Value)

  Template converting a value (generally a string) into an double.
- template<typename A , typename B >
  std::pair< B, A > flip_pair (const std::pair< A, B > &p)

  Template flipping a pair key type with value type.
- template<typename A , typename B >
  std::multimap< B, A,
  std::greater< B > > flip_map (const std::map< A, B > &src)

  Template flipping a multimap with descending order keys with values.
- int wordCount (const std::string &str)

  Computes the word count of a string.
- std::string getStdoutFromCommand (std::string cmd)

  Executes a system command and returns the output.

5.1.1 Detailed Description

Namespace containing all the common functions of XenC.

5.1.2 Function Documentation

5.1.2.1 template<typename A , typename B > std::multimap<B, A, std::greater<B> > XenCommon::flip_map (const std::map< A, B > & *src*)

Template flipping a multimap with descending order keys with values.

Template Parameters

&src	: the multimap to flip

Returns

flipped multimap with descending order

5.1.2.2 template<typename A , typename B > std::pair<B, A> XenCommon::flip_pair (const std::pair< A, B > & *p*)

Template flipping a pair key type with value type.

Template Parameters

&p	: the map pair<A, B> to flip

Returns

flipped pair<B, A>

5.1.2.3 std::string XenCommon::getStdoutFromCommand (std::string *cmd*) [inline]

Executes a system command and returns the output.

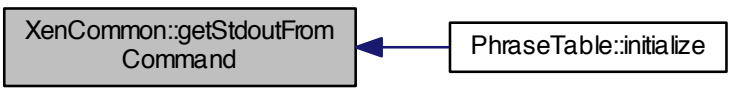
Parameters

cmd	: the command to execute

Returns

the output of the executed command

Here is the caller graph for this function:



5.1.2.4 template<typename T > double XenCommon::toDouble (const T & *Value*)

Template converting a value (generally a string) into an double.

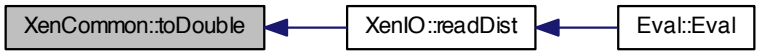
Template Parameters

&Value	: the value to convert

Returns

string containing the converted value

Here is the caller graph for this function:



5.1.2.5 template<typename T > int XenCommon::toInt (const T & *Value*)

Template converting a value (generally a string) into an integer.

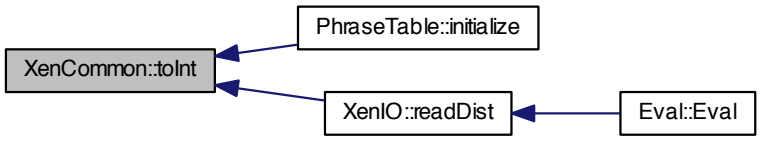
Template Parameters

&Value	: the value to convert

Returns

string containing the converted value

Here is the caller graph for this function:



5.1.2.6 template<typename T > std::string XenCommon::toString (const T & *Value*)

Template converting a value into a string with a precision of 20.

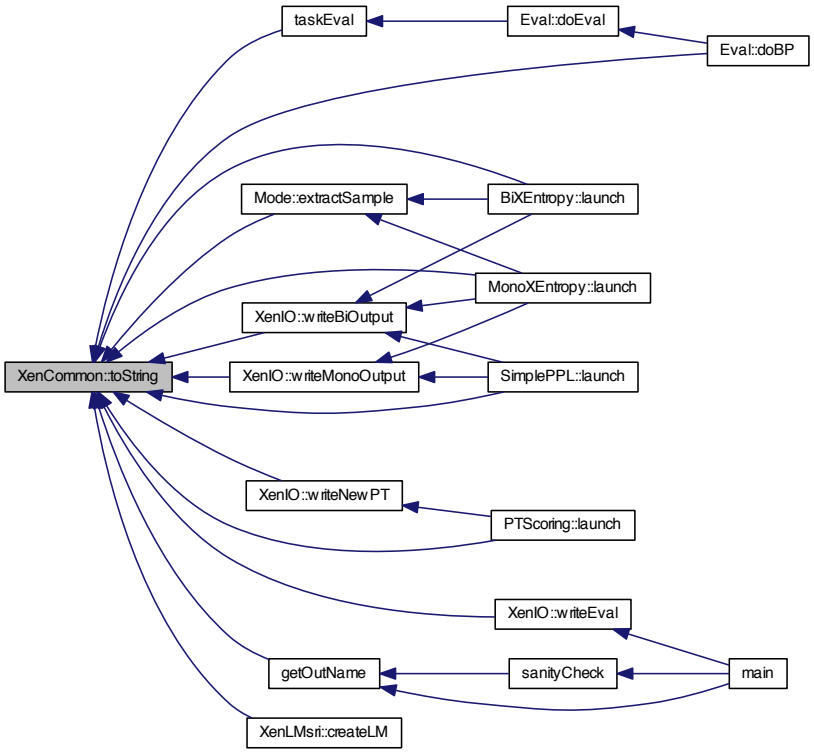
Template Parameters

&Value	: the value to convert

Returns

string containing the converted value

Here is the caller graph for this function:



5.1.2.7 template<typename T > std::string XenCommon::toString0 (const T & *Value*)

Template converting a value into a string with no precision.

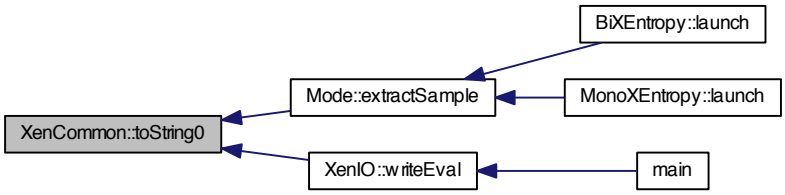
Template Parameters

&Value	: the value to convert

Returns

string containing the converted value

Here is the caller graph for this function:



5.1.2.8 int XenCommon::wordCount (const std::string & *str*) [inline]

Computes the word count of a string.

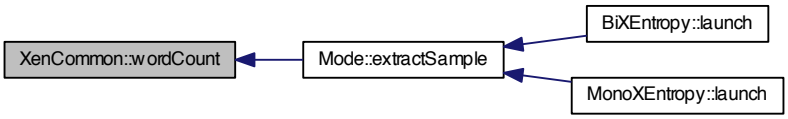
Parameters

&str	: the string to count the words

Returns

the number of words of the string

Here is the caller graph for this function:



Chapter 6

Class Documentation

6.1 _Options Struct Reference

XenC options structure.

`#include "utils/common.h"`

Public Attributes

- std::string sLang

  The source language.
- std::string tLang

  The target language.
- std::string inSData

  The in-domain source corpus.
- std::string outSData

  The out-of-domain source corpus.
- std::string inTData

  The in-domain target corpus.
- std::string outTData

  The out-of-domain target corpus.
- std::string inSStem

  The in-domain source stem corpus.
- std::string outSStem

  The out-of-domain source stem corpus.
- std::string inTStem

  The in-domain target stem corpus.
- std::string outTStem

  The out-of-domain source stem corpus.
- std::string iPTable

  The in-domain phrase-table.
- std::string oPTable

  The out-of-domain phrase-table.
- int mode

  The filtering mode.
- bool mean

  Indicates mean computation.
- bool sim

Indicates similarity computation.

- bool simOnly

  Indicates similarity computation only.
- int vecSize

  The vector size for similarity.
- std::string sVocab

  The source language vocabulary.
- std::string tVocab

  The target language vocabulary.
- bool fullVoc

  Indicates if a global vocabulary is requested (instead of only in-domain)
- std::string inSLM

  The in-domain source language model.
- std::string outSLM

  The out-of-domain source language model.
- std::string inTLM

  The in-domain target language model.
- std::string outTLM

  The out-of-domain target language model.
- std::string wFile

  The weight file.
- std::string dev

  The development corpus (for evaluation)
- int order

  The order for language models estimation.
- int discount

  The discounting method for language models estimation.
- int binLM

  The language models output format (0 = ARPA, 1 = binary)
- int sampleSize

  The sample size for the out-of-domain corpus.
- bool log

  Indicates if the weights are given in the log domain.
- bool rev

  Indicates if a reversed output is requested (descending order)
- bool inv

  Indicates if an inverse output is requested (1 - score)
- bool mono

  Indicates if monolingual data is being filtered or not.
- bool stem

  Indicates stem computation.
- bool local

  Indicates local scores computation for phrase table filtering.
- bool eval

  Indicates evaluation mode.
- bool bp

  Indicates best-point evaluation mode.
- int step

  The step size for evaluation and best-point.
- int pc

  The current percentage being evaluated.

- int inToks

  The number of in-domain tokens.
- int outToks

  The number of out-of-domain tokens.
- std::string outName

  The output file name.
- std::string name

  The program name.
- bool version

  The program version.
- int threads

  The number of threads.
- bool sortOnly

  Indicated outputting only the "sorted" file (not the "scored" one)

6.1.1 Detailed Description

XenC options structure.

6.1.2 Member Data Documentation

6.1.2.1 int _Options::binLM

The language models output format (0 = ARPA, 1 = binary)

6.1.2.2 bool _Options::bp

Indicates best-point evaluation mode.

6.1.2.3 std::string _Options::dev

The development corpus (for evaluation)

6.1.2.4 int _Options::discount

The discounting method for language models estimation.

6.1.2.5 bool _Options::eval

Indicates evaluation mode.

6.1.2.6 bool _Options::fullVoc

Indicates if a global vocabulary is requested (instead of only in-domain)

6.1.2.7 std::string _Options::inSData

The in-domain source corpus.

6.1.2.8 std::string _Options::inSLM

The in-domain source language model.

6.1.2.9 std::string _Options::inSStem

The in-domain source stem corpus.

6.1.2.10 std::string _Options::inTData

The in-domain target corpus.

6.1.2.11 std::string _Options::inTLM

The in-domain target language model.

6.1.2.12 int _Options::inToks

The number of in-domain tokens.

6.1.2.13 std::string _Options::inTStem

The in-domain target stem corpus.

6.1.2.14 bool _Options::inv

Indicates if an inverse output is requested (1 - score)

6.1.2.15 std::string _Options::iPTable

The in-domain phrase-table.

6.1.2.16 bool _Options::local

Indicates local scores computation for phrase table filtering.

6.1.2.17 bool _Options::log

Indicates if the weights are given in the log domain.

6.1.2.18 bool _Options::mean

Indicates mean computation.

6.1.2.19 int _Options::mode

The filtering mode.

6.1.2.20 bool _Options::mono

Indicates if monolingual data is being filtered or not.

6.1.2.21 std::string _Options::name

The program name.

6.1.2.22 std::string _Options::oPTable

The out-of-domain phrase-table.

6.1.2.23 int _Options::order

The order for language models estimation.

6.1.2.24 std::string _Options::outName

The output file name.

6.1.2.25 std::string _Options::outSData

The out-of-domain source corpus.

6.1.2.26 std::string _Options::outSLM

The out-of-domain source language model.

6.1.2.27 std::string _Options::outSStem

The out-of-domain source stem corpus.

6.1.2.28 std::string _Options::outTData

The out-of-domain target corpus.

6.1.2.29 std::string _Options::outTLM

The out-of-domain target language model.

6.1.2.30 int _Options::outToks

The number of out-of-domain tokens.

6.1.2.31 std::string _Options::outTStem

The out-of-domain source stem corpus.

6.1.2.32 int _Options::pc

The current percentage being evaluated.

6.1.2.33 bool _Options::rev

Indicates if a reversed output is requested (descending order)

6.1.2.34 int _Options::sampleSize

The sample size for the out-of-domain corpus.

6.1.2.35 bool _Options::sim

Indicates similarity computation.

6.1.2.36 bool _Options::simOnly

Indicates similarity computation only.

6.1.2.37 std::string _Options::sLang

The source language.

6.1.2.38 bool _Options::sortOnly

Indicated outputting only the "sorted" file (not the "scored" one)

6.1.2.39 bool _Options::stem

Indicates stem computation.

6.1.2.40 int _Options::step

The step size for evaluation and best-point.

6.1.2.41 std::string _Options::sVocab

The source language vocabulary.

6.1.2.42 int _Options::threads

The number of threads.

6.1.2.43 std::string _Options::tLang

The target language.

6.1.2.44 std::string _Options::tVocab

The target language vocabulary.

6.1.2.45 int _Options::vecSize

The vector size for similarity.

6.1.2.46 bool _Options::version

The program version.

6.1.2.47 std::string _Options::wFile

The weight file.

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

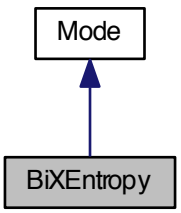
- include/utils/common.h

6.2 BiXEntropy Class Reference

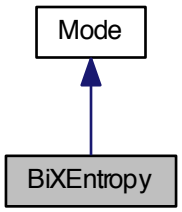
Filtering mode 3: bilingual cross-entropy.

`#include <biXEntropy.h>`

Inheritance diagram for BiXEntropy:



Collaboration diagram for BiXEntropy:



Public Member Functions

- BiXEntropy ()

  Default constructor.
- ∼BiXEntropy ()

  Default destructor.
- int launch ()

  Function in charge of launching the filtering mode.

Additional Inherited Members

6.2.1 Detailed Description

Filtering mode 3: bilingual cross-entropy.

This class derived from Mode handles the third filtering mode: bilingual cross-entropy

6.2.2 Constructor & Destructor Documentation

6.2.2.1 BiXEntropy::BiXEntropy ( )

Default constructor.

6.2.2.2 BiXEntropy::∼BiXEntropy ( )

Default destructor.

6.2.3 Member Function Documentation

6.2.3.1 int BiXEntropy::launch ( ) [virtual]

Function in charge of launching the filtering mode.

Returns

0 if the filtering succeeds

Implements Mode.

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

- include/modes/biXEntropy.h
- src/modes/biXEntropy.cpp

6.3 Corpus Class Reference

Corpus-related functionalities.

`#include <corpus.h>`

Public Member Functions

- Corpus ()
  Default constructor.
- void initialize (boost::shared_ptr< XenFile > ptrData, std::string lg)
  Initialization function from an already instanciated XenFile.
- void initialize (std::string filePath, std::string lg)
  Initialization function from a string containing a valid path/file name.
- ~Corpus ()
  Default destructor.
- boost::shared_ptr< XenFile > getXenFile () const
  Accessor to the XenFile associated to the Corpus.
- std::string getLine (int line)
  Accessor to the lines of text from the Corpus.
- unsigned int getSize () const
  Accessor to the size of the Corpus.
- std::string getLang () const
  Accessor to the language of the Corpus.
- bool getPrint (int line)
  Accessor to the printing status of a line.
- int getWC () const
  Accessor to the number of tokens of the Corpus.
- void removeLine (int line)
  Put the printing status of a line to false.

6.3.1 Detailed Description

Corpus-related functionalities.

This class handles the corpus used in XenC, providing means to get lines of text, size, language, token counts...

6.3.2 Constructor & Destructor Documentation

6.3.2.1 Corpus::Corpus ( )

Default constructor.

6.3.2.2 Corpus::~Corpus ( )

Default destructor.

6.3.3 Member Function Documentation

6.3.3.1 std::string Corpus::getLang ( ) const

Accessor to the language of the Corpus.

Returns

string containing the language

6.3.3.2 std::string Corpus::getLine (int *line*)

Accessor to the lines of text from the Corpus.

Parameters

line	: integer representing the line number

Returns

string containing the text line

6.3.3.3 bool Corpus::getPrint (int *line*)

Accessor to the printing status of a line.

Parameters

line	: integer representing the line number

Returns

true if the line can be printed

6.3.3.4 unsigned int Corpus::getSize ( ) const

Accessor to the size of the Corpus.

Returns

unsigned int representing the size

6.3.3.5 int Corpus::getWC ( ) const

Accessor to the number of tokens of the Corpus.

Returns

integer representing the token count

Here is the caller graph for this function:

6.3.3.6 boost::shared_ptr< XenFile > Corpus::getXenFile ( ) const

Accessor to the XenFile associated to the Corpus.

Returns

shared pointer to the XenFile

6.3.3.7 void Corpus::initialize (boost::shared_ptr< XenFile > *ptrData*, std::string *lg*)

Initialization function from an already instanciated XenFile.

Parameters

ptrData	: shared pointer on a XenFile representing the corpus on disk
lg	: language of the corpus

Here is the caller graph for this function:

6.3.3.8 void Corpus::initialize (std::string *filePath*, std::string *lg*)

Initialization function from a string containing a valid path/file name.

Parameters

filePath	: string containing a valid path/file name
lg	: language of the corpus

6.3.3.9 void Corpus::removeLine (int *line*)

Put the printing status of a line to false.

Parameters

line	: integer representing the line number

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

- include/corpus.h
- src/corpus.cpp

6.4 CorpusPair Class Reference

Tiny class holding two related Corpus.

`#include <StaticData.h>`

Public Member Functions

- CorpusPair ()
  Default constructor.
- ~CorpusPair ()
  Default destructor.
- boost::shared_ptr< Corpus > getPtrInCorp () const
  Accessor to the in-domain corpus.
- boost::shared_ptr< Corpus > getPtrOutCorp () const
  Accessor to the out-of-domain corpus.

6.4.1 Detailed Description

Tiny class holding two related Corpus.

6.4.2 Constructor & Destructor Documentation

6.4.2.1 CorpusPair::CorpusPair ( ) [inline]

Default constructor.

6.4.2.2 CorpusPair::~CorpusPair ( ) [inline]

Default destructor.

6.4.3 Member Function Documentation

6.4.3.1 boost::shared_ptr< Corpus > CorpusPair::getPtrInCorp ( ) const [inline]

Accessor to the in-domain corpus.

Returns

the in-domain corpus

6.4.3.2 boost::shared_ptr< Corpus > CorpusPair::getPtrOutCorp ( ) const [inline]

Accessor to the out-of-domain corpus.

Returns

the out-of-domain corpus

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

- include/utils/StaticData.h

6.5 Eval Class Reference

Evaluation system.

`#include <eval.h>`

Public Member Functions

- Eval ()
  Default constructor.
- Eval (std::string distFile)
  Constructor from a string.
- ~Eval ()
  Default destructor.
- void doEval (int high, int low)
  Computes an evaluation bount by the high and low integers (in percentage)
- void doBP ()
  Computes the best theoretical point based on current evaluation.
- boost::shared_ptr< EvalMap > getDist () const
  Accessor to the evaluation distribution map.

6.5.1 Detailed Description

Evaluation system.

This class handles the evaluation procedure in XenC, providing mean to perform eval, best point, and getting the results. It uses threads extensively, so please watch your memory usage since there is some memory leaks in SRILM.

6.5.2 Constructor & Destructor Documentation

6.5.2.1 Eval::Eval ( )

Default constructor.

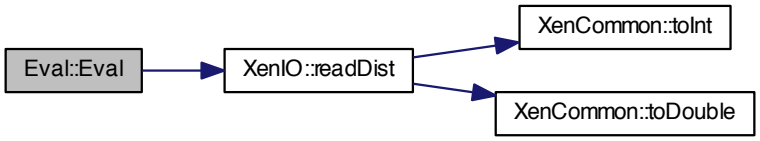
6.5.2.2 Eval::Eval (std::string *distFile*)

Constructor from a string.

Parameters

distFile	: string containing a valid path to the evaluation (∗.dist) file, usually used when doing BP

Here is the call graph for this function:



6.5.2.3 Eval::∼Eval ( )

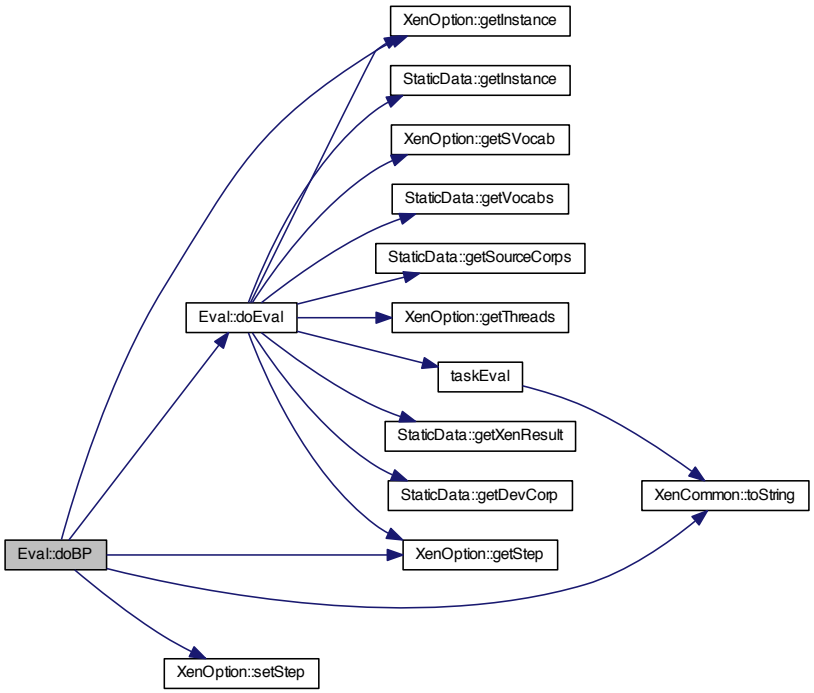
Default destructor.

6.5.3 Member Function Documentation

6.5.3.1 void Eval::doBP ( )

Computes the best theoretical point based on current evaluation.

Here is the call graph for this function:



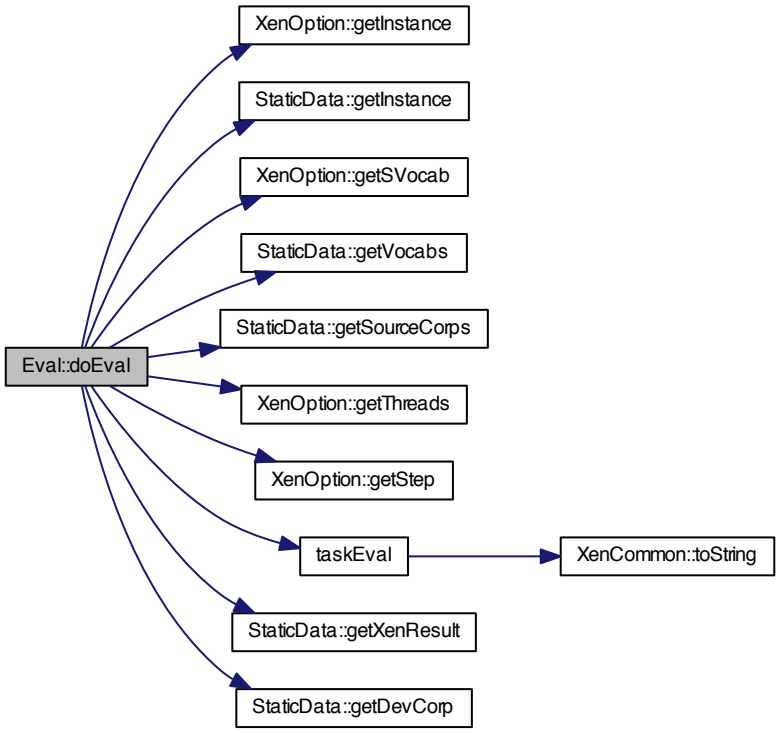
6.5.3.2 void Eval::doEval (int *high*, int *low*)

Computes an evaluation bount by the high and low integers (in percentage)

Parameters

high	: integer representing the upper bound for evaluation
low	: integer representing the lower bound for evaluation

Here is the call graph for this function:



Here is the caller graph for this function:

6.5.3.3 boost::shared_ptr< EvalMap > Eval::getDist ( ) const

Accessor to the evaluation distribution map.

Returns

shared pointer on EvalMap containing all the evaluation results

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

- include/eval.h
- src/eval.cpp

6.6 LMPair Class Reference

Tiny class holding two related language models.

`#include <StaticData.h>`

Public Member Functions

- LMPair ()

  Default constructor.
- ~LMPair ()

  Default destructor.
- boost::shared_ptr< XenLMsri > getPtrInLM () const

  Accessor to the in-domain language model.
- boost::shared_ptr< XenLMsri > getPtrOutLM () const

  Accessor to the out-of-domain language model.

6.6.1 Detailed Description

Tiny class holding two related language models.

6.6.2 Constructor & Destructor Documentation

6.6.2.1 LMPair::LMPair ( ) [inline]

Default constructor.

6.6.2.2 LMPair::~LMPair ( ) [inline]

Default destructor.

6.6.3 Member Function Documentation

6.6.3.1 boost::shared_ptr< XenLMsri > LMPair::getPtrInLM ( ) const [inline]

Accessor to the in-domain language model.

Returns

the in-domain language model

6.6.3.2 boost::shared_ptr< XenLMsri > LMPair::getPtrOutLM ( ) const [inline]

Accessor to the out-of-domain language model.

Returns

the out-of-domain language model

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

- include/utils/StaticData.h

6.7 MeanLMPair Class Reference

Tiny class holding two additional LMs for mean scoring feature.

`#include <StaticData.h>`

Public Member Functions

- MeanLMPair ()
  Default constructor.
- ~MeanLMPair ()
  Default Destructor.
- boost::shared_ptr< XenLMsri > getPtrOutLM2 () const
  Accessor to the second out-of-domain language model.
- boost::shared_ptr< XenLMsri > getPtrOutLM3 () const
  Accessor to the third out-of-domain language model.

6.7.1 Detailed Description

Tiny class holding two additional LMs for mean scoring feature.

6.7.2 Constructor & Destructor Documentation

6.7.2.1 MeanLMPair::MeanLMPair ( ) [inline]

Default constructor.

6.7.2.2 MeanLMPair::~MeanLMPair ( ) [inline]

Default Destructor.

6.7.3 Member Function Documentation

6.7.3.1 boost::shared_ptr< XenLMsri > MeanLMPair::getPtrOutLM2 ( ) const [inline]

Accessor to the second out-of-domain language model.

Returns

the second out-of-domain language model

6.7.3.2 boost::shared_ptr< XenLMsri > MeanLMPair::getPtrOutLM3 ( ) const [inline]

Accessor to the third out-of-domain language model.

Returns

the third out-of-domain language model

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

- include/utils/StaticData.h

6.8 MeanPPLPair Class Reference

Tiny class holding two additional PPL objects for mean scoring feature.

`#include <StaticData.h>`

Public Member Functions

- MeanPPLPair ()
  Default constructor.
- ~MeanPPLPair ()
  Default Destructor.
- boost::shared_ptr< PPL > getPtrOutPPL2 () const
  Accessor to the second out-of-domain PPL object.
- boost::shared_ptr< PPL > getPtrOutPPL3 () const
  Accessor to the third out-of-domain PPL object.

6.8.1 Detailed Description

Tiny class holding two additional PPL objects for mean scoring feature.

6.8.2 Constructor & Destructor Documentation

6.8.2.1 MeanPPLPair::MeanPPLPair ( ) [inline]

Default constructor.

6.8.2.2 MeanPPLPair::~MeanPPLPair ( ) [inline]

Default Destructor.

6.8.3 Member Function Documentation

6.8.3.1 boost::shared_ptr< PPL > MeanPPLPair::getPtrOutPPL2 ( ) const [inline]

Accessor to the second out-of-domain PPL object.

Returns

the second out-of-domain PPL object

6.8.3.2 boost::shared_ptr< PPL > MeanPPLPair::getPtrOutPPL3 ( ) const [inline]

Accessor to the third out-of-domain PPL object.

Returns

the third out-of-domain PPL object

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

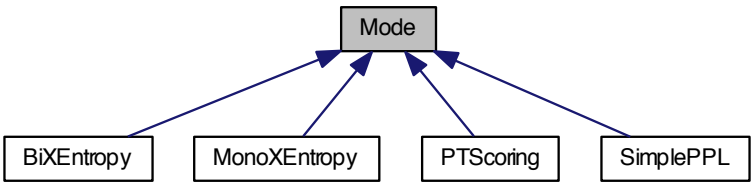
- include/utils/StaticData.h

6.9 Mode Class Reference

Filtering modes interface.

`#include <mode.h>`

Inheritance diagram for Mode:



Public Member Functions

- virtual int launch ()=0

  Virtual function in charge of launching the implemented mode.
- virtual ~Mode ()=0

  Pure virtual destructor.

Static Protected Member Functions

- static int findSampleSize (boost::shared_ptr< Corpus > idCorp, boost::shared_ptr< Corpus > oodCorp)

  Finds the optimal sample size for the OOD Corpus.
- static Corpus extractSample (boost::shared_ptr< Corpus > ptrCorp, int sSize, bool mean)

  Extracts a random sample from a give Corpus.

6.9.1 Detailed Description

Filtering modes interface.

This class takes the role of an interface to the various XenC filtering modes.

6.9.2 Constructor & Destructor Documentation

6.9.2.1 Mode::~Mode ( ) [pure virtual]

Pure virtual destructor.

6.9.3 Member Function Documentation

6.9.3.1 Corpus Mode::extractSample (boost::shared_ptr< Corpus > *ptrCorp*, int *sSize*, bool *mean*) [static], [protected]

Extracts a random sample from a give Corpus.

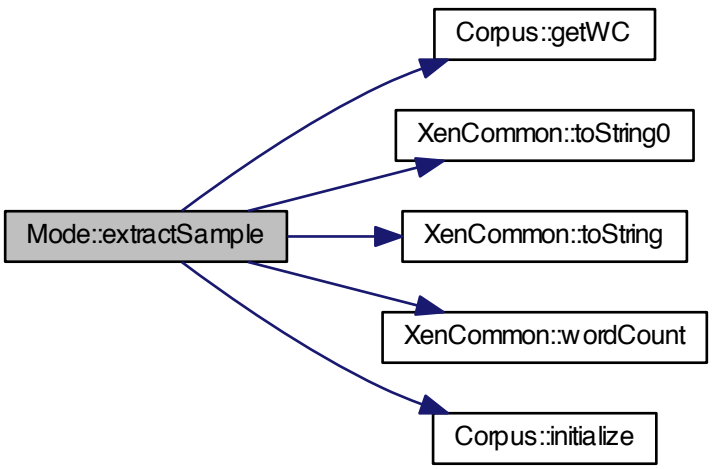
Parameters

ptrCorp	: Corpus from which the sample should be extracted
sSize	: size of the sample to extract
mean	: true if we are in "mean" mode (not the same Corpus filename)

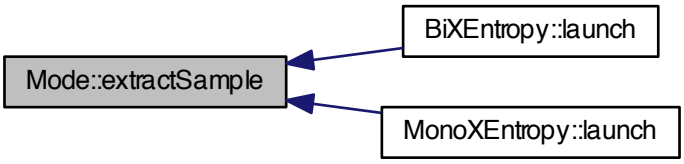
Returns

extracted Corpus sample

Here is the call graph for this function:



Here is the caller graph for this function:



6.9.3.2 int Mode::findSampleSize (boost::shared_ptr< Corpus > *idCorp*, boost::shared_ptr< Corpus > *oodCorp*) [static], [protected]

Finds the optimal sample size for the OOD Corpus.

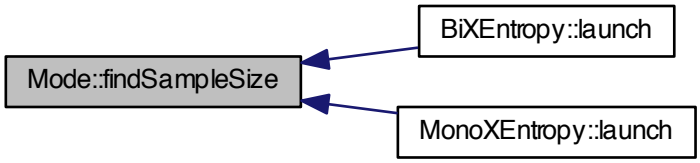
Parameters

idCorp	: in-domain Corpus
oodCorp	: out-of-domain Corpus

Returns

size of the required Corpus sample in percentage of the whole one

Here is the caller graph for this function:



6.9.3.3 int Mode::launch ( ) [pure virtual]

Virtual function in charge of launching the implemented mode.

Implemented in BiXEntropy, MonoXEntropy, PTScoring, and SimplePPL.

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

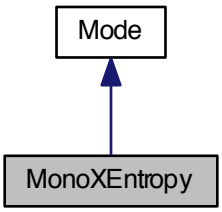
- include/mode.h
- src/mode.cpp

6.10 MonoXEntropy Class Reference

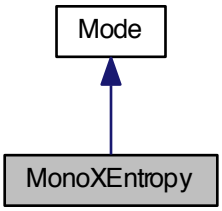
Filtering mode 2: monolingual cross-entropy.

`#include <monoXEntropy.h>`

Inheritance diagram for MonoXEntropy:



Collaboration diagram for MonoXEntropy:



Public Member Functions

- MonoXEntropy ()
  Default constructor.
- ~MonoXEntropy ()
  Default destructor.
- int launch ()
  Function in charge of launching the filtering mode.

Additional Inherited Members

6.10.1 Detailed Description

Filtering mode 2: monolingual cross-entropy.

This class derived from Mode handles the second filtering mode: monolingual cross-entropy

6.10.2 Constructor & Destructor Documentation

6.10.2.1 MonoXEntropy::MonoXEntropy ( )

Default constructor.

6.10.2.2 MonoXEntropy::~MonoXEntropy ( )

Default destructor.

6.10.3 Member Function Documentation

6.10.3.1 int MonoXEntropy::launch ( ) [virtual]

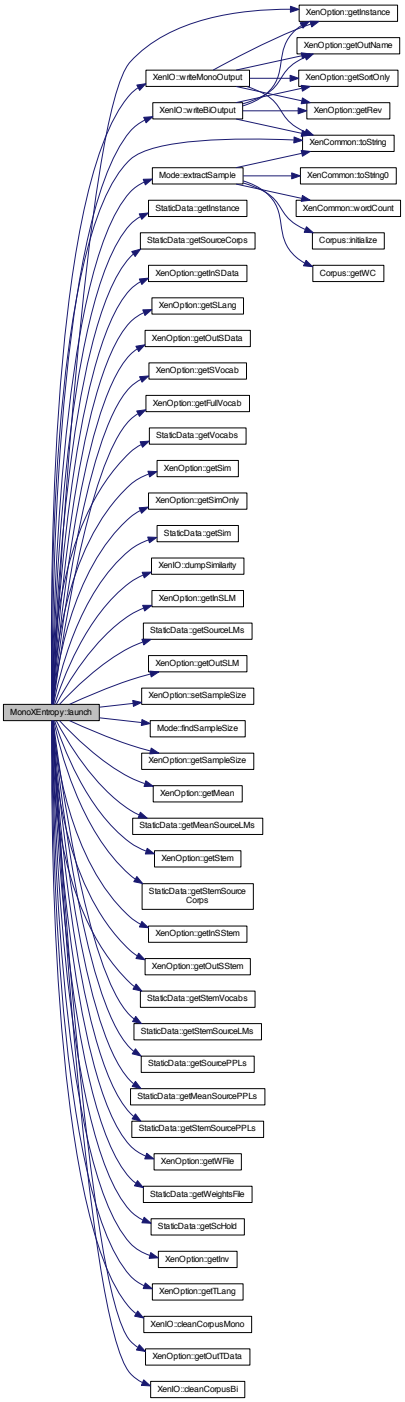
Function in charge of launching the filtering mode.

Returns

0 if the filtering succeeds

Implements Mode.

Here is the call graph for this function:



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

- include/modes/monoXEntropy.h
- src/modes/monoXEntropy.cpp

6.11 PhraseTable Class Reference

Class handling phrase-table related functionalities.

`#include <phrasetable.h>`

Public Member Functions

- PhraseTable ()

  Default constructor.
- void initialize (boost::shared_ptr< XenFile > ptrData)

  Initialization function from an already instanciated XenFile.
- ~PhraseTable ()

  Default destructor.
- boost::shared_ptr< XenFile > getXenFile () const

  Accessor to the XenFile associated to the PhraseTable.
- std::string getSource (int n)

  Accessor to the nth source phrase.
- std::string getTarget (int n)

  Accessor to the nth target phrase.
- std::string getScores (int n)

  Accessor to the nth scores for the source/target phrase pair.
- std::string getAlignment (int n)

  Accessor to the nth alignments for the source/target phrase pair.
- std::string getCounts (int ph)

  Accessor to the nth counts for the source/target phrase pair.
- std::vector< SourcePhrase > getSrcPhrases ()

  Accessor to the vector of merged source phrases.
- void setSrcPhrases (std::vector< SourcePhrase > vSP)

  Mutator to the vector of merged source phrases.
- unsigned int getSize () const

  Accessor to the size of the PhraseTable.

6.11.1 Detailed Description

Class handling phrase-table related functionalities.

This class handles all phrase-table related functionalities and is used in the fourth filtering mode

6.11.2 Constructor & Destructor Documentation

6.11.2.1 PhraseTable::PhraseTable ( )

Default constructor.

6.11.2.2 PhraseTable::~PhraseTable ( )

Default destructor.

6.11.3 Member Function Documentation

6.11.3.1 std::string PhraseTable::getAlignment (int *n*)

Accessor to the nth alignments for the source/target phrase pair.

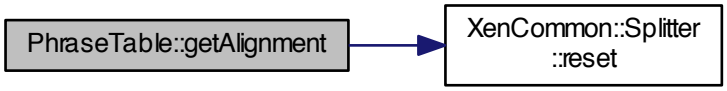
Parameters

n	: integer representing the phrase number

Returns

string containing the alignment

Here is the call graph for this function:



6.11.3.2 std::string PhraseTable::getCounts (int *n*)

Accessor to the nth counts for the source/target phrase pair.

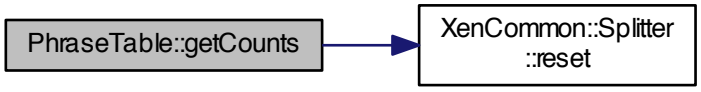
Parameters

n	: integer representing the phrase number

Returns

string containing the counts

Here is the call graph for this function:



6.11.3.3 std::string PhraseTable::getScores (int *n*)

Accessor to the nth scores for the source/target phrase pair.

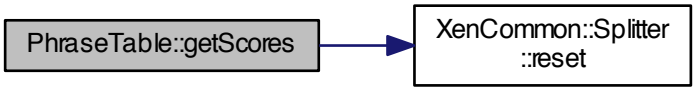
Parameters

n	: integer representing the phrase number

Returns

string containing the scores

Here is the call graph for this function:



6.11.3.4 unsigned int PhraseTable::getSize ( ) const

Accessor to the size of the PhraseTable.

Returns

unsigned int representing the size

6.11.3.5 std::string PhraseTable::getSource (int *n*)

Accessor to the nth source phrase.

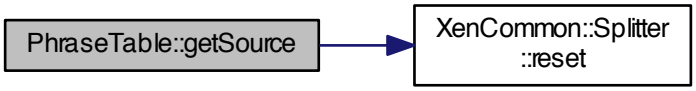
Parameters

n	: integer representing the phrase number

Returns

string containing the source phrase

Here is the call graph for this function:



6.11.3.6 std::vector< SourcePhrase > PhraseTable::getSrcPhrases ( )

Accessor to the vector of merged source phrases.

Returns

vector of merged SourcePhrase

6.11.3.7 std::string PhraseTable::getTarget (int *n*)

Accessor to the nth target phrase.

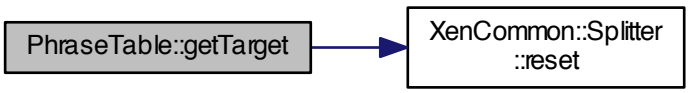
Parameters

n	: integer representing the phrase number

Returns

string containing the target phrase

Here is the call graph for this function:



6.11.3.8 boost::shared_ptr< XenFile > PhraseTable::getXenFile ( ) const

Accessor to the XenFile associated to the PhraseTable.

Returns

shared pointer to the XenFile

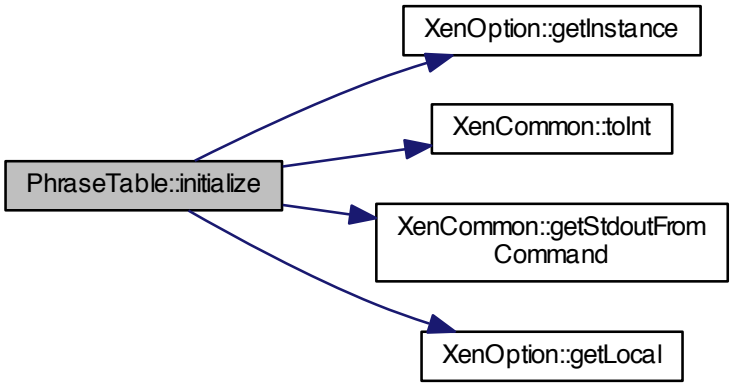
6.11.3.9 void PhraseTable::initialize (boost::shared_ptr< XenFile > *ptrData*)

Initialization function from an already instanciated XenFile.

Parameters

ptrData	: shared pointer on a XenFile representing the PhraseTable on disk

Here is the call graph for this function:



6.11.3.10 void PhraseTable::setSrcPhrases (std::vector< SourcePhrase > *vSP*)

Mutator to the vector of merged source phrases.

Parameters

vSP	: vector of SourcePhrase

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

- include/phrasetable.h
- src/phrasetable.cpp

6.12 PhraseTablePair Class Reference

Tiny class holding the two phrase-tables.

`#include <StaticData.h>`

Public Member Functions

- PhraseTablePair ()

  Default constructor.
- ~PhraseTablePair ()

  Default destructor.
- boost::shared_ptr< PhraseTable > getPtrInPT () const

  Accessor to the in-domain phrase-table.
- boost::shared_ptr< PhraseTable > getPtrOutPT () const

  Accessor to the out-of-domain phrase-table.

6.12.1 Detailed Description

Tiny class holding the two phrase-tables.

6.12.2 Constructor & Destructor Documentation

6.12.2.1 PhraseTablePair::PhraseTablePair ( ) [inline]

Default constructor.

6.12.2.2 PhraseTablePair::~PhraseTablePair ( ) [inline]

Default destructor.

6.12.3 Member Function Documentation

6.12.3.1 boost::shared_ptr< PhraseTable > PhraseTablePair::getPtrInPT ( ) const [inline]

Accessor to the in-domain phrase-table.

Returns

the in-domain phrase-table

6.12.3.2 boost::shared_ptr< PhraseTable > PhraseTablePair::getPtrOutPT ( ) const [inline]

Accessor to the out-of-domain phrase-table.

Returns

the out-of-domain phrase-table

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

- include/utils/StaticData.h

6.13 PPL Class Reference

Perplexity/Cross-entropy computations.

`#include <ppl.h>`

Public Member Functions

- PPL ()
  Default constructor.
- void initialize (boost::shared_ptr< Corpus > ptrCorp, boost::shared_ptr< XenLMsri > ptrLM)
  Initialization function from a Corpus and a Language Model object.
- void initialize (boost::shared_ptr< PhraseTable > ptrPT, boost::shared_ptr< XenLMsri > ptrLM, bool source)
  Initialization function from a PhraseTable and a Language Model object.

- ~PPL ()

  Default destructor.

- unsigned int getSize () const

  Accessor to the size of the perplexity/cross-entropy vector.

- double getPPL (int n)

  Accessor to the nth perplexity score.

- double getXE (int n)

  Accessor to the nth cross-entropy score.

- double getCorpPPL ()

  Accessor to the document-level perplexity score.

- void calcPPLCorpus ()

  Computes the perplexity of a Corpus sentence by sentence.

- void calcPPLPhraseTable ()

  Computes the perplexity of a PhraseTable phrase by phrase.

6.13.1 Detailed Description

Perplexity/Cross-entropy computations.

This class handles the perplexity/cross-entropy computations in XenC. It uses threads extensively to compute scores simultaneously.

6.13.2 Constructor & Destructor Documentation

6.13.2.1 PPL::PPL ( )

Default constructor.

6.13.2.2 PPL::~PPL ( )

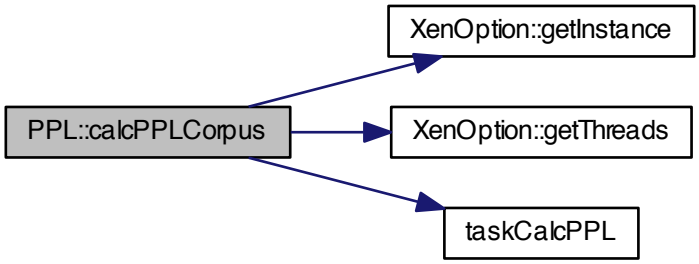
Default destructor.

6.13.3 Member Function Documentation

6.13.3.1 void PPL::calcPPLCorpus ( )

Computes the perplexity of a Corpus sentence by sentence.

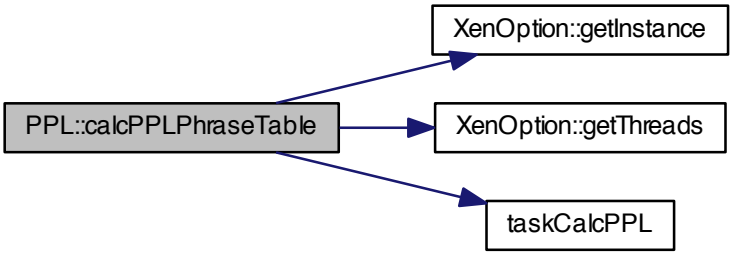
Here is the call graph for this function:



6.13.3.2 void PPL::calcPPLPhraseTable ( )

Computes the perplexity of a PhraseTable phrase by phrase.

Here is the call graph for this function:



6.13.3.3 double PPL::getCorpPPL ( )

Accessor to the document-level perplexity score.

Returns

double representing the document perplexity score

6.13.3.4 double PPL::getPPL (int *n*)

Accessor to the nth perplexity score.

Parameters

n	: integer indicating the position of the score to return

Returns

double representing the nth perplexity score

6.13.3.5 unsigned int PPL::getSize ( ) const

Accessor to the size of the perplexity/cross-entropy vector.

Returns

unsigned int representing the size

6.13.3.6 double PPL::getXE (int *n*)

Accessor to the nth cross-entropy score.

Parameters

n	: integer indicating the position of the score to return

Returns

double representing the nth cross-entropy score

6.13.3.7 void PPL::initialize (boost::shared_ptr< **Corpus** > *ptrCorp,* boost::shared_ptr< **XenLMsri** > *ptrLM*)

Initialization function from a Corpus and a Language Model object.

Parameters

ptrCorp	: shared pointer on a Corpus to compute perplexity for
ptrLM	: shared pointer on a XenLMsri object to compute perplexity from

6.13.3.8 void PPL::initialize (boost::shared_ptr< **PhraseTable** > *ptrPT,* boost::shared_ptr< **XenLMsri** > *ptrLM,* bool *source*)

Initialization function from a PhraseTable and a Language Model object.

Parameters

ptrPT	: shared pointer on a PhraseTable to compute perplexity for
ptrLM	: shared pointer on a XenLMsri object to compute perplexity from
source	: boolean indicating if we are on source (true) or target (false) side of the PhraseTable

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

- include/ppl.h
- src/ppl.cpp

6.14 PPLPair Class Reference

Tiny class holding two related PPL objects.

`#include <StaticData.h>`

Public Member Functions

- PPLPair ()
  Default constructor.
- ~PPLPair ()
  Default destructor.
- boost::shared_ptr< PPL > getPtrInPPL () const
  Accessor to the in-domain PPL object.
- boost::shared_ptr< PPL > getPtrOutPPL () const
  Accessor to the out-of-domain PPL object.

6.14.1 Detailed Description

Tiny class holding two related PPL objects.

6.14.2 Constructor & Destructor Documentation

6.14.2.1 PPLPair::PPLPair ( ) [inline]

Default constructor.

6.14.2.2 PPLPair::~PPLPair ( ) [inline]

Default destructor.

6.14.3 Member Function Documentation

6.14.3.1 boost::shared_ptr< PPL > PPLPair::getPtrInPPL ( ) const [inline]

Accessor to the in-domain PPL object.

Returns

the in-domain PPL object

6.14.3.2 boost::shared_ptr< PPL > PPLPair::getPtrOutPPL ( ) const [inline]

Accessor to the out-of-domain PPL object.

Returns

the out-of-domain PPL object

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

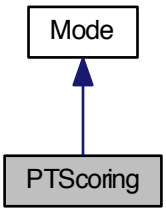
- include/utils/StaticData.h

6.15 PTScoring Class Reference

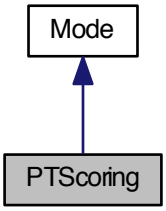
Filtering mode 4: phrase-table cross-entropy.

`#include <ptScoring.h>`

Inheritance diagram for PTScoring:



Collaboration diagram for PTScoring:



Public Member Functions

- PTScoring ()
  Default constructor.
- ~PTScoring ()
  Default destructor.
- int launch ()
  Function in charge of launching the filtering mode.

Additional Inherited Members

6.15.1 Detailed Description

Filtering mode 4: phrase-table cross-entropy.

This class derived from Mode handles the fourth filtering mode: phrase-table cross-entropy – WARNING: experimental

6.15.2 Constructor & Destructor Documentation

6.15.2.1 PTScoring::PTScoring ( )

Default constructor.

6.15.2.2 PTScoring::~PTScoring ( )

Default destructor.

6.15.3 Member Function Documentation

6.15.3.1 int PTScoring::launch ( ) [virtual]

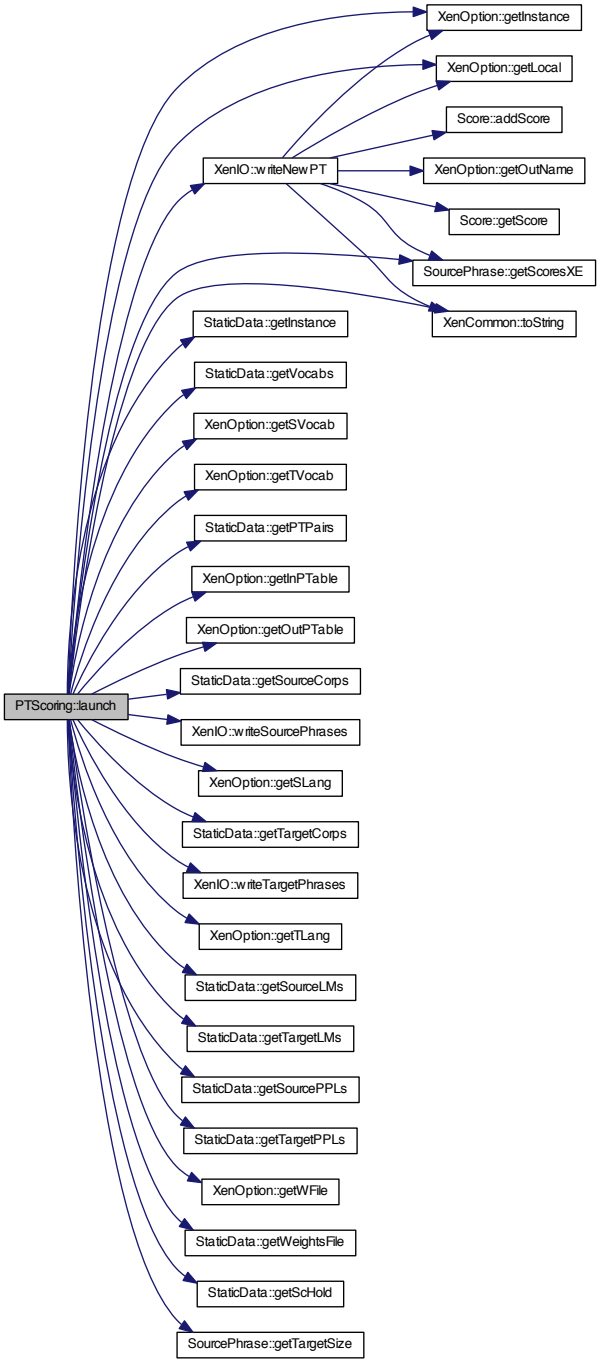
Function in charge of launching the filtering mode.

Returns

0 if the filtering succeeds

Implements Mode.

Here is the call graph for this function:



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

- include/modes/ptScoring.h
- src/modes/ptScoring.cpp

6.16 Score Class Reference

Class holding the XenC scores representation.

`#include <score.h>`

Public Member Functions

- Score ()
  Default constructor.
- ~Score ()
  Default destructor.
- void addScore (double sc)
  Adds a score to the vector of doubles.
- void removeScore (int n)
  Removes the nth score from the vector of doubles.
- double getScore (int n) const
  Accessor to the nth score.
- bool getPrint (int n) const
  Accessor to the output status of the nth score.
- unsigned int getSize () const
  Accessor to the size of the scores vector.
- void calibrate ()
  Calibrates the scores distribution between 0 and 1.
- void inverse ()
  Inverts the calibrated score distribution (1 - score)

6.16.1 Detailed Description

Class holding the XenC scores representation.

This class holds the representation of XenC scores. Can add/remove scores and provides access to them.

6.16.2 Constructor & Destructor Documentation

6.16.2.1 Score::Score ( )

Default constructor.

6.16.2.2 Score::~Score ( )

Default destructor.

6.16.3 Member Function Documentation

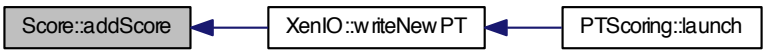
6.16.3.1 void Score::addScore (double *sc*)

Adds a score to the vector of doubles.

Parameters

sc	: score to add to the Score holder

Here is the caller graph for this function:



6.16.3.2 void Score::calibrate ( )

Calibrates the scores distribution between 0 and 1.

6.16.3.3 bool Score::getPrint (int *n*) const

Accessor to the output status of the nth score.

Parameters

n	: position of the printing status to get

Returns

true if the score should be outputted

6.16.3.4 double Score::getScore (int *n*) const

Accessor to the nth score.

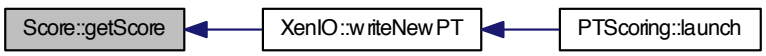
Parameters

n	: position of the score to return

Returns

double representing the requested score

Here is the caller graph for this function:



6.16.3.5 unsigned int Score::getSize ( ) const

Accessor to the size of the scores vector.

Returns

unsigned int representing the size

6.16.3.6 void Score::inverse ( )

Inverts the calibrated score distribution (1 - score)

6.16.3.7 void Score::removeScore (int *n*)

Removes the nth score from the vector of doubles.

Parameters

n	: position of the score to remove in the vector

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

- include/score.h
- src/score.cpp

6.17 ScoreHolder Class Reference

Tiny class holding three Score objects (global scores, similarity, cross-entropy)

`#include <StaticData.h>`

Public Member Functions

- ScoreHolder ()

  Default constructor.
- ~ScoreHolder ()

  Default Destructor.
- boost::shared_ptr< Score > getPtrScores () const

  Accessor to the global Score object.
- boost::shared_ptr< Score > getPtrScSimil () const

  Accessor to the similarity measures Score object.
- boost::shared_ptr< Score > getPtrScXenC () const

  Accessor to the cross-entropy Score object.

6.17.1 Detailed Description

Tiny class holding three Score objects (global scores, similarity, cross-entropy)

6.17.2 Constructor & Destructor Documentation

6.17.2.1 ScoreHolder::ScoreHolder ( ) [inline]

Default constructor.

6.17.2.2 ScoreHolder::~ScoreHolder ( ) [inline]

Default Destructor.

6.17.3 Member Function Documentation

6.17.3.1 boost::shared_ptr< Score > ScoreHolder::getPtrScores ( ) const [inline]

Accessor to the global Score object.

Returns

the global Score object

6.17.3.2 boost::shared_ptr< Score > ScoreHolder::getPtrScSimil ( ) const [inline]

Accessor to the similarity measures Score object.

Returns

the similarity measures Score object

6.17.3.3 boost::shared_ptr< Score > ScoreHolder::getPtrScXenC ( ) const [inline]

Accessor to the cross-entropy Score object.

Returns

the cross-entropy Score object

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

- include/utils/StaticData.h

6.18 Similarity Class Reference

Class taking care of all the similarity measure computations.

`#include <similarity.h>`

Public Member Functions

- Similarity ()
  Default constructor.
- void initialize (boost::shared_ptr< Corpus > ptrInCorp, boost::shared_ptr< Corpus > ptrOutCorp, boost::shared_ptr< XenVocab > ptrVocab)
  Initialization function from two Corpus (in and out-of-domain) and a vocabulary (XenVocab)
- ~Similarity ()
  Default destructor.
- float getSim (int n)
  Accessor to the nth sentence similarity measure.
- unsigned int getSize () const
  Accessor to the size of the similarity map.

6.18.1 Detailed Description

Class taking care of all the similarity measure computations.

This class computes similarity scores between two Corpus given a vocabulary. It determines the optimal vector for both Corpus, and uses it for similarity computation. WARNING: this feature is still experimental

6.18.2 Constructor & Destructor Documentation

6.18.2.1 Similarity::Similarity ( )

Default constructor.

6.18.2.2 Similarity::~Similarity ( )

Default destructor.

6.18.3 Member Function Documentation

6.18.3.1 float Similarity::getSim (int *n*)

Accessor to the nth sentence similarity measure.

Parameters

n	: integer representing the number of the sentence

Returns

float representing the similarity measure of the nth sentence

6.18.3.2 unsigned int Similarity::getSize ( ) const

Accessor to the size of the similarity map.

Returns

unsigned int representing the size

6.18.3.3 void Similarity::initialize (boost::shared_ptr< Corpus > *ptrInCorp*, boost::shared_ptr< Corpus > *ptrOutCorp*, boost::shared_ptr< XenVocab > *ptrVocab*)

Initialization function from two Corpus (in and out-of-domain) and a vocabulary (XenVocab)

Parameters

ptrInCorp	: shared pointer on the in-domain Corpus
ptrOutCorp	: shared pointer on the out-of-domain Corpus
ptrVocab	: shared pointer on the common XenVocab (usually the in-domain one)

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

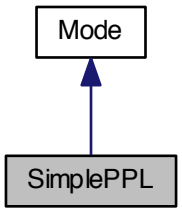
- include/similarity.h
- src/similarity.cpp

6.19 SimplePPL Class Reference

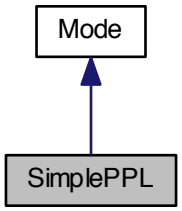
Filtering mode 1: simple perplexity.

`#include <simplePPL.h>`

Inheritance diagram for SimplePPL:



Collaboration diagram for SimplePPL:



Public Member Functions

- SimplePPL ()

  Default constructor.
- ~SimplePPL ()

  Default destructor.
- int launch ()

  Function in charge of launching the filtering mode.

Additional Inherited Members

6.19.1 Detailed Description

Filtering mode 1: simple perplexity.

This class derived from Mode handles the first filtering mode: simple perplexity

6.19.2 Constructor & Destructor Documentation

6.19.2.1 SimplePPL::SimplePPL ( )

Default constructor.

6.19.2.2 SimplePPL::~SimplePPL ( )

Default destructor.

6.19.3 Member Function Documentation

6.19.3.1 int SimplePPL::launch ( ) [virtual]

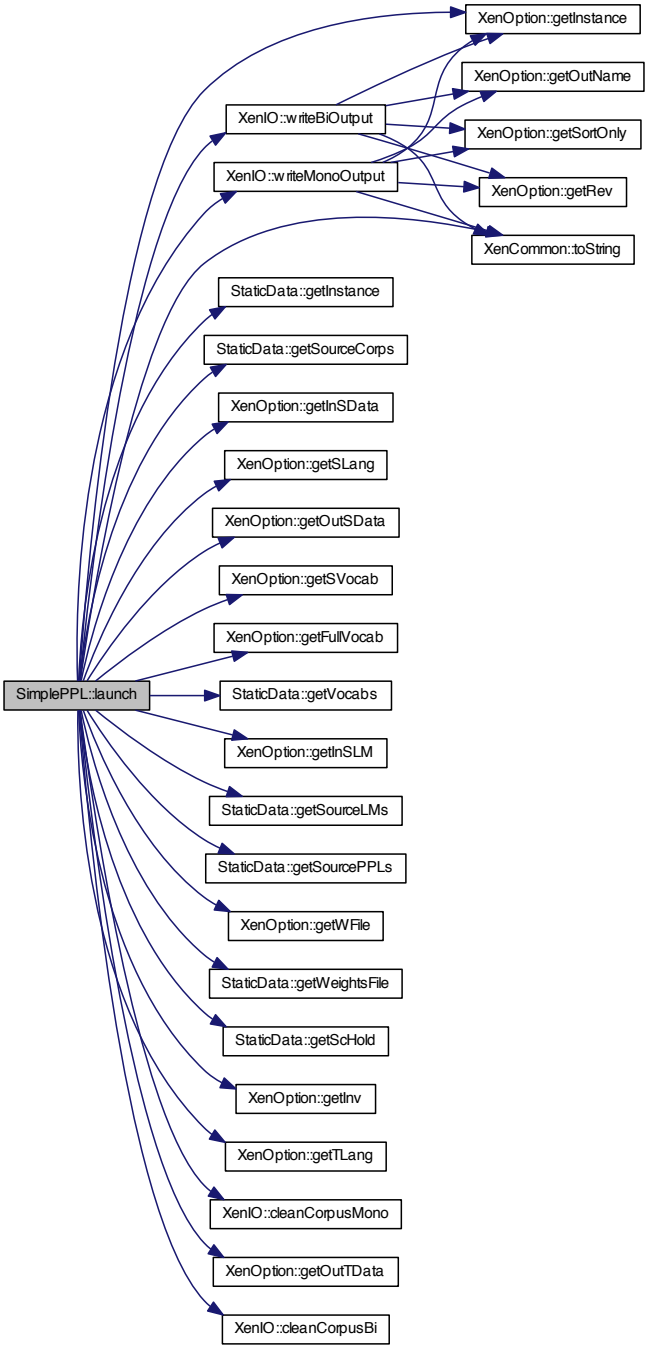
Function in charge of launching the filtering mode.

Returns

0 if the filtering succeeds

Implements Mode.

Here is the call graph for this function:



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

- include/modes/simplePPL.h
- src/modes/simplePPL.cpp

6.20 SourcePhrase Class Reference

Class holding a merged source phrase and all associated data.

`#include <sourcephrase.h>`

Public Member Functions

- SourcePhrase (std::string src)

  Constructor from a string.
- ~SourcePhrase ()

  Default destructor.
- std::string getSource () const

  Accessor to the source phrase.
- unsigned int getTargetSize () const

  Accessor to the size of the target phrases associated to the source phrase.
- boost::shared_ptr< Score > getScoresXE () const

  Accessor to the vector of cross-entropy scores for the target phrases.
- void addTarget (std::string s)

  Associates a target phrase to the source phrase.
- void addScores (std::string s)

  Associates a phrase table scores sequence to the source phrase.
- void addAlignments (std::string s)

  Associates alignments to the source phrase.
- void addCounts (std::string s)

  Associates counts to the source phrase.

6.20.1 Detailed Description

Class holding a merged source phrase and all associated data.

This class holds a merged source phrase from a PhraseTable, along with target phrases, scores, alignments and counts.

6.20.2 Constructor & Destructor Documentation

6.20.2.1 SourcePhrase::SourcePhrase (std::string *src*)

Constructor from a string.

Parameters

src	: string representing the source phrase

6.20.2.2 SourcePhrase::~SourcePhrase ( )

Default destructor.

6.20.3 Member Function Documentation

6.20.3.1 void SourcePhrase::addAlignments (std::string *s*)

Associates alignments to the source phrase.

Parameters

s	: the alignments to add to the source phrase

6.20.3.2 void SourcePhrase::addCounts (std::string *s*)

Associates counts to the source phrase.

Parameters

s	: the counts to add to the source phrase

6.20.3.3 void SourcePhrase::addScores (std::string *s*)

Associates a phrase table scores sequence to the source phrase.

Parameters

s	: the scores sequence to add to the source phrase

6.20.3.4 void SourcePhrase::addTarget (std::string *s*)

Associates a target phrase to the source phrase.

Parameters

s	: the target phrase to add to the source phrase

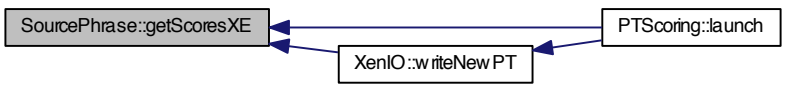
6.20.3.5 boost::shared_ptr< Score > SourcePhrase::getScoresXE ( ) const

Accessor to the vector of cross-entropy scores for the target phrases.

Returns

a shared pointer on a Score object containing the scores

Here is the caller graph for this function:



6.20.3.6 std::string SourcePhrase::getSource ( ) const

Accessor to the source phrase.

Returns

the source phrase

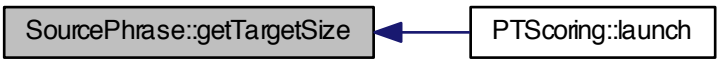
6.20.3.7 unsigned int SourcePhrase::getTargetSize ( ) const

Accessor to the size of the target phrases associated to the source phrase.

Returns

the size of the target phrases vector

Here is the caller graph for this function:



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

- include/sourcephrase.h
- src/sourcephrase.cpp

6.21 XenCommon::Splitter Class Reference

Class defining a splitter.

`#include <common.h>`

Public Types

- typedef std::vector < std::string >::size_type size_type

Public Member Functions

- Splitter ()
- Splitter (const std::string &src, const std::string &delim)
- std::string & operator[] (size_type i)
- size_type size () const
- void reset (const std::string &src, const std::string &delim)

6.21.1 Detailed Description

Class defining a splitter.

Class to split a string into vector of string, given a potentially multi-character delimiter (like "|||" in a phrase table for instance)

6.21.2 Member Typedef Documentation

6.21.2.1 typedef std::vector<std::string>::size_type XenCommon::Splitter::size_type

6.21.3 Constructor & Destructor Documentation

6.21.3.1 XenCommon::Splitter::Splitter ( ) [inline]

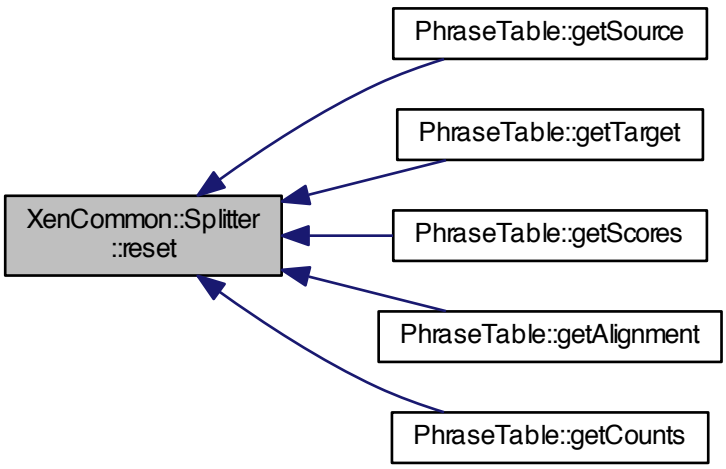
6.21.3.2 XenCommon::Splitter::Splitter (const std::string & *src,* const std::string & *delim*) [inline]

6.21.4 Member Function Documentation

6.21.4.1 std::string& XenCommon::Splitter::operator[] (size_type *i*) [inline]

6.21.4.2 void XenCommon::Splitter::reset (const std::string & *src,* const std::string & *delim*) [inline]

Here is the caller graph for this function:



6.21.4.3 size_type XenCommon::Splitter::size ( ) const [inline]

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

- include/utils/common.h

6.22 StaticData Class Reference

Class gathering all data used and generated by XenC.

`#include <StaticData.h>`

Static Public Member Functions

- static StaticData * getInstance ()

  Accessor to the instance of the singleton StaticData object.
- static void deleteInstance ()

  Deletes the unique instance of the StaticData singleton.
- static boost::shared_ptr < CorpusPair > getSourceCorps ()

  Accessor to the source language Corpus Pair.
- static boost::shared_ptr < CorpusPair > getTargetCorps ()

  Accessor to the target language Corpus.
- static boost::shared_ptr< LMPair > getSourceLMs ()

  Accessor to the source language models.
- static boost::shared_ptr< LMPair > getTargetLMs ()

  Accessor to the target language models.
- static boost::shared_ptr < VocabPair > getVocabs ()

  Accessor to the vocabularies.
- static boost::shared_ptr< PPLPair > getSourcePPLs ()

  Accessor to the source language PPL objects.
- static boost::shared_ptr< PPLPair > getTargetPPLs ()

  Accessor to the target language PPL objects.
- static boost::shared_ptr < PhraseTablePair > getPTPairs ()

  Accessor to the phrase-tables.
- static boost::shared_ptr < MeanLMPair > getMeanSourceLMs ()

  Accessor to the mean source language models.
- static boost::shared_ptr < MeanLMPair > getMeanTargetLMs ()

  Accessor to the mean target language models.
- static boost::shared_ptr < MeanPPLPair > getMeanSourcePPLs ()

  Accessor to the mean source PPL objects.
- static boost::shared_ptr < MeanPPLPair > getMeanTargetPPLs ()

  Accessor to the mean target PPL objects.
- static boost::shared_ptr < CorpusPair > getStemSourceCorps ()

  Accessor to the source language stem Corpus Pair.
- static boost::shared_ptr < CorpusPair > getStemTargetCorps ()

  Accessor to the target language stem Corpus Pair.
- static boost::shared_ptr< LMPair > getStemSourceLMs ()

  Accessor to the source language stem language models.

- static boost::shared_ptr< LMPair > getStemTargetLMs ()

  Accessor to the target language stem language models.
- static boost::shared_ptr < VocabPair > getStemVocabs ()

  Accessor to the stem vocabularies.
- static boost::shared_ptr< PPLPair > getStemSourcePPLs ()

  Accessor to the source language stem PPL objects.
- static boost::shared_ptr< PPLPair > getStemTargetPPLs ()

  Accessor to the target language stem PPL objects.
- static boost::shared_ptr < Similarity > getSim ()

  Accessor to the Similarity measures object.
- static boost::shared_ptr < ScoreHolder > getScHold ()

  Accessor to the ScoreHolder object.
- static boost::shared_ptr< Wfile > getWeightsFile ()

  Accessor to the weights file.
- static boost::shared_ptr < XenResult > getXenResult ()

  Accessor to the filtering result file.
- static boost::shared_ptr< Corpus > getDevCorp ()

  Accessor to the development Corpus.

6.22.1 Detailed Description

Class gathering all data used and generated by XenC.

6.22.2 Member Function Documentation

6.22.2.1 void StaticData::deleteInstance ( ) [static]

Deletes the unique instance of the StaticData singleton.

Here is the caller graph for this function:

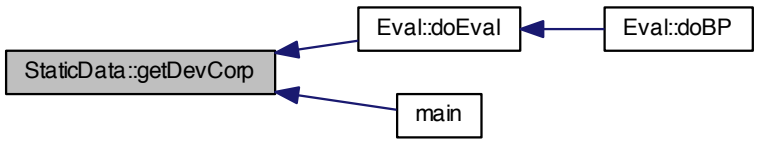
6.22.2.2 boost::shared_ptr< Corpus > StaticData::getDevCorp ( ) [static]

Accessor to the development Corpus.

Returns

the development Corpus

Here is the caller graph for this function:



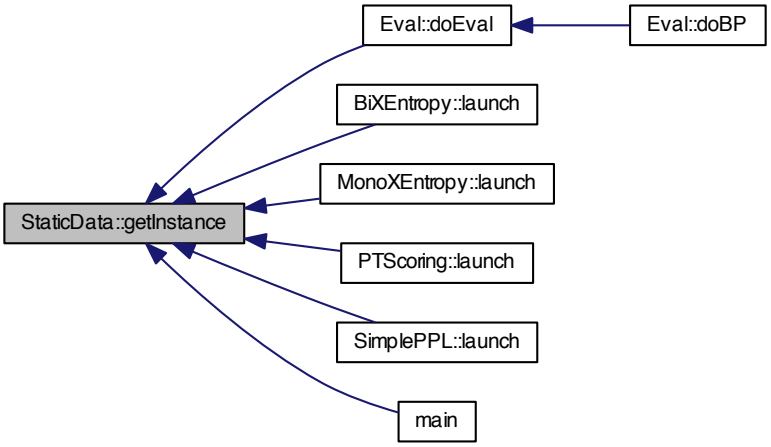
6.22.2.3 StaticData * StaticData::getInstance ( ) [static]

Accessor to the instance of the singleton StaticData object.

Returns

the StaticData unique instance

Here is the caller graph for this function:



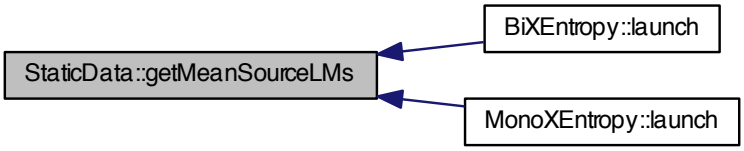
6.22.2.4 boost::shared_ptr< MeanLMPair > StaticData::getMeanSourceLMs ( ) [static]

Accessor to the mean source language models.

Returns

the mean source language models

Here is the caller graph for this function:



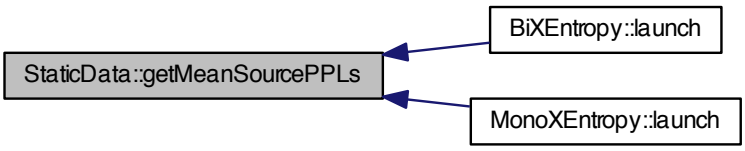
6.22.2.5 boost::shared_ptr< MeanPPLPair > StaticData::getMeanSourcePPLs ( ) [static]

Accessor to the mean source PPL objects.

Returns

the mean source PPL objects

Here is the caller graph for this function:



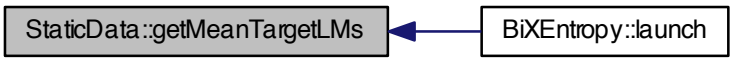
6.22.2.6 boost::shared_ptr< MeanLMPair > StaticData::getMeanTargetLMs ( ) [static]

Accessor to the mean target language models.

Returns

the mean target language models

Here is the caller graph for this function:



6.22.2.7 boost::shared_ptr< MeanPPLPair > StaticData::getMeanTargetPPLs ( ) [static]

Accessor to the mean target PPL objects.

Returns

the mean target PPL objects

Here is the caller graph for this function:

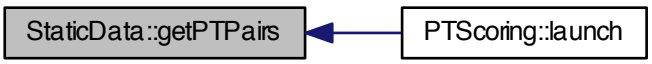
6.22.2.8 boost::shared_ptr< PhraseTablePair > StaticData::getPTPairs ( ) [static]

Accessor to the phrase-tables.

Returns

the phrase-tables

Here is the caller graph for this function:



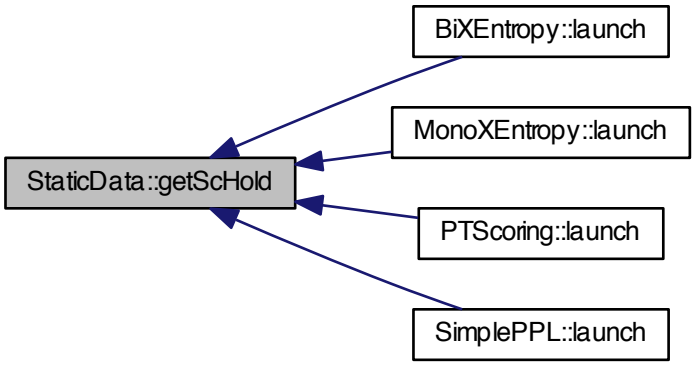
6.22.2.9 boost::shared_ptr< ScoreHolder > StaticData::getScHold ( ) [static]

Accessor to the ScoreHolder object.

Returns

the ScoreHolder object

Here is the caller graph for this function:



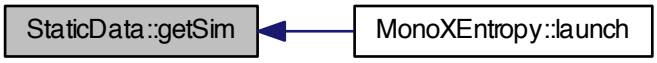
6.22.2.10 boost::shared_ptr< Similarity > StaticData::getSim ( ) [static]

Accessor to the Similarity measures object.

Returns

the Similarity measures object

Here is the caller graph for this function:



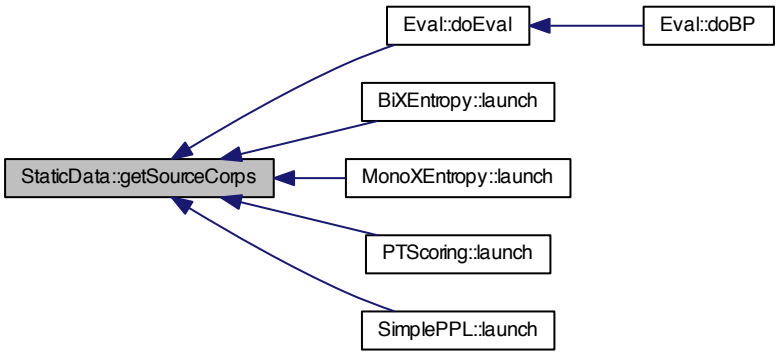
6.22.2.11 boost::shared_ptr< CorpusPair > StaticData::getSourceCorps ( ) [static]

Accessor to the source language Corpus Pair.

Returns

the source language Corpus Pair

Here is the caller graph for this function:



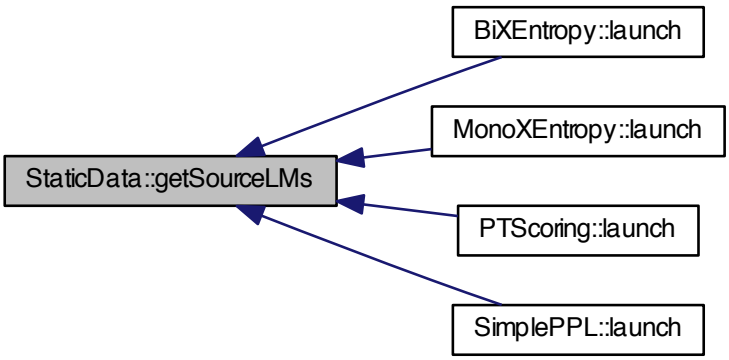
6.22.2.12 boost::shared_ptr< LMPair > StaticData::getSourceLMs ( ) [static]

Accessor to the source language models.

Returns

the source language models

Here is the caller graph for this function:



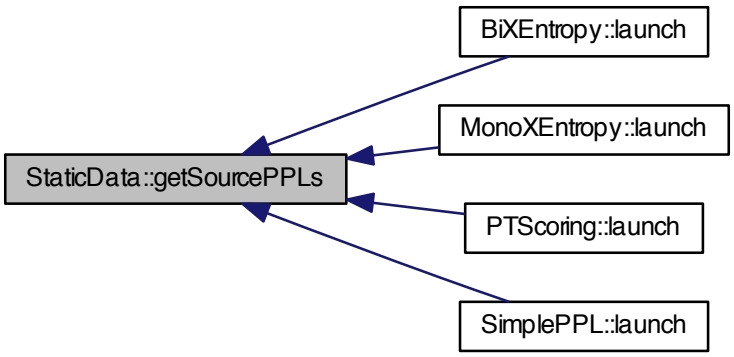
6.22.2.13 boost::shared_ptr< PPLPair > StaticData::getSourcePPLs ( ) [static]

Accessor to the source language PPL objects.

Returns

the source language PPL objects

Here is the caller graph for this function:



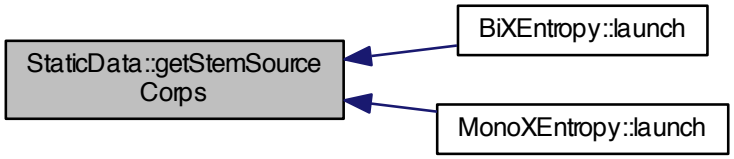
6.22.2.14 boost::shared_ptr< CorpusPair > StaticData::getStemSourceCorps ( ) [static]

Accessor to the source language stem Corpus Pair.

Returns

the source language stem Corpus Pair

Here is the caller graph for this function:



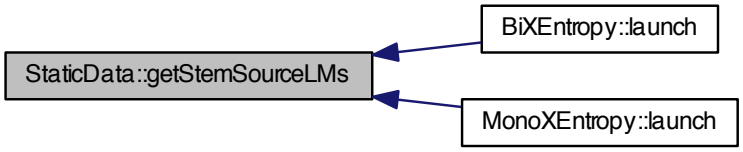
6.22.2.15 boost::shared_ptr< LMPair > StaticData::getStemSourceLMs ( ) [static]

Accessor to the source language stem language models.

Returns

the source language stem language models

Here is the caller graph for this function:



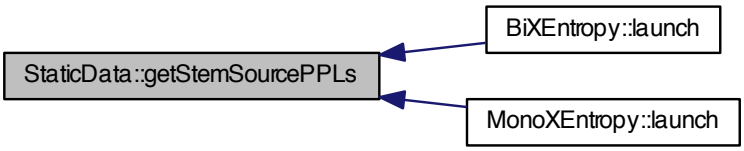
6.22.2.16 boost::shared_ptr< PPLPair > StaticData::getStemSourcePPLs ( ) [static]

Accessor to the source language stem PPL objects.

Returns

the source language stem PPL objects

Here is the caller graph for this function:



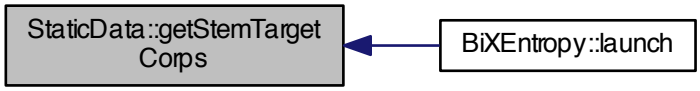
6.22.2.17 boost::shared_ptr< CorpusPair > StaticData::getStemTargetCorps ( ) [static]

Accessor to the target language stem Corpus Pair.

Returns

the target language stem Corpus Pair

Here is the caller graph for this function:



6.22.2.18 boost::shared_ptr< LMPair > StaticData::getStemTargetLMs ( ) [static]

Accessor to the target language stem language models.

Returns

the target language stem language models

Here is the caller graph for this function:

6.22.2.19 boost::shared_ptr< PPLPair > StaticData::getStemTargetPPLs ( ) [static]

Accessor to the target language stem PPL objects.

Returns

the target language stem PPL objects

Here is the caller graph for this function:

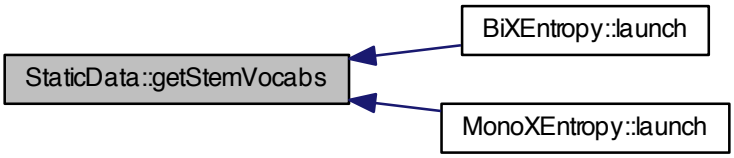
6.22.2.20 boost::shared_ptr< VocabPair > StaticData::getStemVocabs ( ) [static]

Accessor to the stem vocabularies.

Returns

the stem vocabularies

Here is the caller graph for this function:



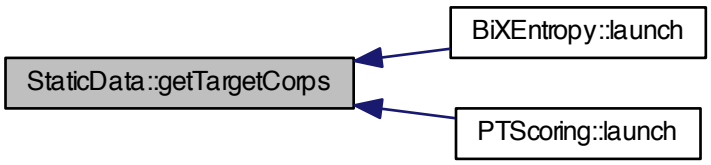
6.22.2.21 boost::shared_ptr< CorpusPair > StaticData::getTargetCorps ( ) [static]

Accessor to the target language Corpus.

Returns

the target language Corpus Pair

Here is the caller graph for this function:



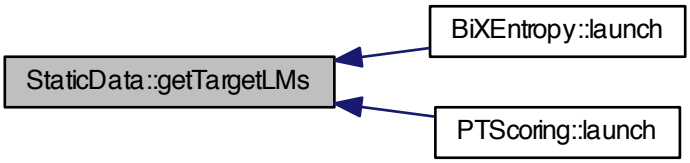
6.22.2.22 boost::shared_ptr< LMPair > StaticData::getTargetLMs ( ) [static]

Accessor to the target language models.

Returns

the target language models

Here is the caller graph for this function:



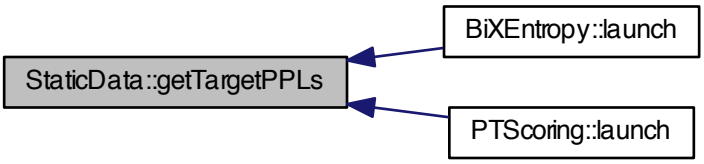
6.22.2.23 boost::shared_ptr< PPLPair > StaticData::getTargetPPLs ( ) [static]

Accessor to the target language PPL objects.

Returns

the target language PPL objects

Here is the caller graph for this function:



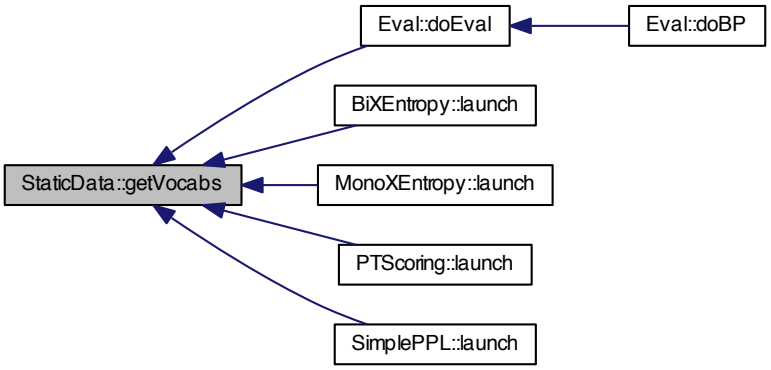
6.22.2.24 boost::shared_ptr< VocabPair > StaticData::getVocabs ( ) [static]

Accessor to the vocabularies.

Returns

the vocabularies

Here is the caller graph for this function:



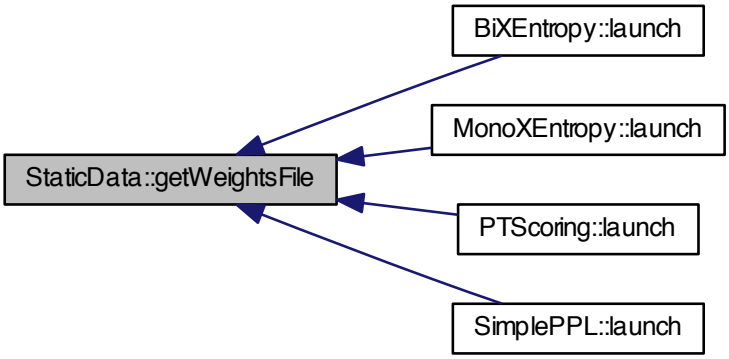
6.22.2.25 boost::shared_ptr< Wfile > StaticData::getWeightsFile ( ) [static]

Accessor to the weights file.

Returns

the weights file

Here is the caller graph for this function:



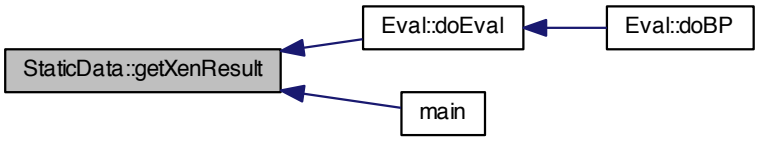
6.22.2.26 boost::shared_ptr< XenResult > StaticData::getXenResult ( ) [static]

Accessor to the filtering result file.

Returns

the filtering result file

Here is the caller graph for this function:



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

- include/utils/StaticData.h
- src/utils/StaticData.cpp

6.23 VocabPair Class Reference

Tiny class holding the two vocabularies.

`#include <StaticData.h>`

Public Member Functions

- VocabPair ()
  Default constructor.
- ~VocabPair ()
  Default destructor.
- boost::shared_ptr< XenVocab > getPtrSourceVoc () const
  Accessor to the source vocabulary.
- boost::shared_ptr< XenVocab > getPtrTargetVoc () const
  Accessor to the target vocabulary.

6.23.1 Detailed Description

Tiny class holding the two vocabularies.

6.23.2 Constructor & Destructor Documentation

6.23.2.1 VocabPair::VocabPair ( ) [inline]

Default constructor.

6.23.2.2 VocabPair::~VocabPair ( ) [inline]

Default destructor.

6.23.3 Member Function Documentation

6.23.3.1 boost::shared_ptr< XenVocab > VocabPair::getPtrSourceVoc ( ) const [inline]

Accessor to the source vocabulary.

Returns

the source vocabulary

6.23.3.2 boost::shared_ptr< XenVocab > VocabPair::getPtrTargetVoc ( ) const [inline]

Accessor to the target vocabulary.

Returns

the target vocabulary

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

- include/utils/StaticData.h

6.24 Wfile Class Reference

Class handling a file with values intended at weighting XenC scores.

`#include <wfile.h>`

Public Member Functions

- Wfile ()
  Default constructor.
- void initialize (boost::shared_ptr< XenFile > ptrFile)
  Initialization function from an already instanciated XenFile.
- ~Wfile ()
  Default destructor.
- double getWeight (int n)
  Accessor to the nth weight of the file.
- unsigned int getSize () const
  Accessor to the size of the weights file.

6.24.1 Detailed Description

Class handling a file with values intended at weighting XenC scores.

The values file should contain one value per line, these values can also be in the log domain.

6.24.2 Constructor & Destructor Documentation

6.24.2.1 Wfile::Wfile ( )

Default constructor.

6.24.2.2 Wfile::~Wfile ( )

Default destructor.

6.24.3 Member Function Documentation

6.24.3.1 unsigned int Wfile::getSize ( ) const

Accessor to the size of the weights file.

Returns

the size of the weights file

6.24.3.2 double Wfile::getWeight (int *n*)

Accessor to the nth weight of the file.

Parameters

n	: the number of the weight line in the file

Returns

the requested weight

6.24.3.3 void Wfile::initialize (boost::shared_ptr< XenFile > *ptrFile*)

Initialization function from an already instanciated XenFile.

Parameters

ptrFile	: the weights file

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

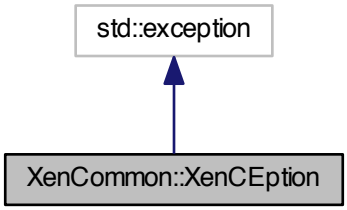
- include/wfile.h
- src/wfile.cpp

6.25 XenCommon::XenCEption Struct Reference

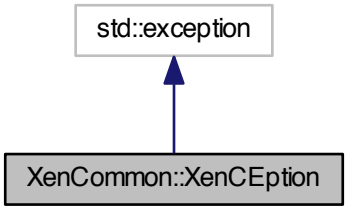
XenC exception structure.

`#include "utils/common.h"`

Inheritance diagram for XenCommon::XenCEption:



Collaboration diagram for XenCommon::XenCEption:



Public Member Functions

- XenCEption (std::string ss)

  Exception constructur.
- virtual ~XenCEption () throw ()

  Exception desctructor.
- const char * what () const throw ()

  Accessor to the exception message.

Public Attributes

- std::string s

  The exception message.

6.25.1 Detailed Description

XenC exception structure.

6.25.2 Constructor & Destructor Documentation

6.25.2.1 XenCommon::XenCEption::XenCEption (std::string *ss*) [inline]

Exception constructur.

6.25.2.2 XenCommon::XenCEption::~XenCEption ( ) throw () [inline], [virtual]

Exception desctructor.

6.25.3 Member Function Documentation

6.25.3.1 const char * XenCommon::XenCEption::what ( ) const throw () [inline]

Accessor to the exception message.

Returns

the exception message

Here is the caller graph for this function:

6.25.4 Member Data Documentation

6.25.4.1 std::string XenCommon::XenCEption::s

The exception message.

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

- include/utils/common.h

6.26 XenFile Class Reference

Class providing some basic functions around files.

`#include <xenfile.h>`

Public Member Functions

- XenFile ()
  Default constructor.
- void initialize (std::string name)
  Initialization function from a string.

- ~XenFile ()

  Default destructor.
- std::string getFileName () const

  Accessor to the file name.
- std::string getPrefix ()

  Accessor to the prefix of the file name (before the dot)
- std::string getExt ()

  Accessor to the extension of the file name (after the dot)
- std::string getDirName () const

  Accessor to the file's directory name.
- std::string getFullPath () const

  Accessor to the file's full path.
- bool isGZ () const

  Tries to guess if the file is a gzip or plain text.

6.26.1 Detailed Description

Class providing some basic functions around files.

This class handles the files used in XenC and provides some basic functionalities around them used widely in XenC.

6.26.2 Constructor & Destructor Documentation

6.26.2.1 XenFile::XenFile ( )

Default constructor.

6.26.2.2 XenFile::~XenFile ( )

Default destructor.

6.26.3 Member Function Documentation

6.26.3.1 std::string XenFile::getDirName ( ) const

Accessor to the file's directory name.

Returns

the file's directory name

6.26.3.2 std::string XenFile::getExt ( )

Accessor to the extension of the file name (after the dot)

Returns

the file name's extension

6.26.3.3 std::string XenFile::getFileName ( ) const

Accessor to the file name.

Returns

the file name (and only the file name)

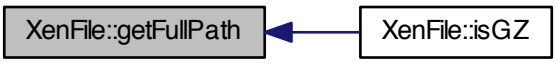
6.26.3.4 std::string XenFile::getFullPath ( ) const

Accessor to the file's full path.

Returns

the file's full path

Here is the caller graph for this function:



6.26.3.5 std::string XenFile::getPrefix ( )

Accessor to the prefix of the file name (before the dot)

Returns

the file name's prefix

6.26.3.6 void XenFile::initialize (std::string *name*)

Initialization function from a string.

Parameters

name	: the file to handle

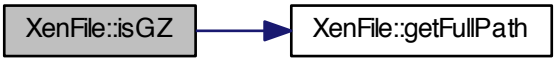
6.26.3.7 bool XenFile::isGZ ( ) const

Tries to guess if the file is a gzip or plain text.

Returns

true if the file is gzipped

Here is the call graph for this function:



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

- include/xenfile.h
- src/xenfile.cpp

6.27 XenIO Class Reference

Class handling all input/output operations of XenC.

`#include <xenio.h>`

Static Public Member Functions

- static void cleanCorpusMono (boost::shared_ptr< Corpus > ptrCorp, boost::shared_ptr< Score > ptrScore)

  Monolingual corpus cleaning (ensures no empty lines)
- static void cleanCorpusBi (boost::shared_ptr< Corpus > ptrCorpSource, boost::shared_ptr< Corpus > ptrCorpTarget, boost::shared_ptr< Score > ptrScore)

  Bilingual corpus cleaning (ensures no empty lines)
- static void writeMonoOutput (boost::shared_ptr< Corpus > ptrCorp, boost::shared_ptr< Score > ptrScore)

  Writes monolingual scored/sorted result files.
- static void writeBiOutput (boost::shared_ptr< Corpus > ptrCorpSource, boost::shared_ptr< Corpus > ptrCorpTarget, boost::shared_ptr< Score > ptrScore)

  Writes bilingual scored/sorted result files.
- static void writeNewPT (boost::shared_ptr< PhraseTable > ptrPT, boost::shared_ptr< Score > ptrScore)

  Writes a new rescored phrase-table.
- static std::string writeSourcePhrases (boost::shared_ptr< PhraseTable > ptrPT)

  Writes a phrase-table's source phrases.
- static std::string writeTargetPhrases (boost::shared_ptr< PhraseTable > ptrPT)

  Writes a phrase-table's target phrases.
- static void writeEval (boost::shared_ptr< EvalMap > ptrEvalMap, std::string distName)

  Writes an evaluation/best point distribution file.
- static void dumpSimilarity (boost::shared_ptr< Corpus > ptrCorp, boost::shared_ptr< Similarity > ptrSim)

  Dumps the Similarity measures of a Corpus.
- static std::vector< std::string > read (boost::shared_ptr< XenFile > ptrFile)

  Reads a file (plain text/gzipped)
- static boost::shared_ptr< EvalMap > readDist (std::string distFile)

  Reads a evaluation/best point distribution file.

6.27.1 Detailed Description

Class handling all input/output operations of XenC.

This class handles file reading/writing (plain text or compressed), corpus cleaning, phrases and phrase-tables writing, similarity dumping...

6.27.2 Member Function Documentation

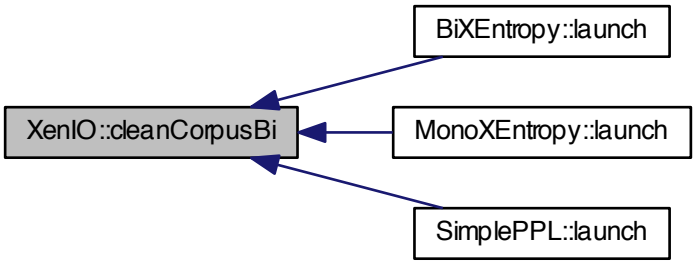
6.27.2.1 void XenIO::cleanCorpusBi (boost::shared_ptr< Corpus > *ptrCorpSource*, boost::shared_ptr< Corpus > *ptrCorpTarget*, boost::shared_ptr< Score > *ptrScore*) [static]

Bilingual corpus cleaning (ensures no empty lines)

Parameters

ptrCorpSource	: the source language Corpus to clean
ptrCorpTarget	: the target language Corpus to clean
ptrScore	: the associated Score object to clean

Here is the caller graph for this function:



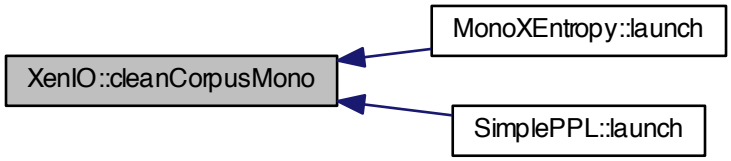
6.27.2.2 void XenIO::cleanCorpusMono (boost::shared_ptr< Corpus > *ptrCorp*, boost::shared_ptr< Score > *ptrScore*) [static]

Monolingual corpus cleaning (ensures no empty lines)

Parameters

ptrCorp	: the Corpus to clean
ptrScore	: the associated Score object to clean

Here is the caller graph for this function:



6.27.2.3 void XenIO::dumpSimilarity (boost::shared_ptr< Corpus > *ptrCorp*, boost::shared_ptr< Similarity > *ptrSim*) [static]

Dumps the Similarity measures of a Corpus.

Parameters

ptrCorp	: the Corpus from which the Similarity measures are dumped
ptrSim	: the Similarity measures to dump

Here is the caller graph for this function:

6.27.2.4 std::vector< std::string > XenIO::read (boost::shared_ptr< XenFile > *ptrFile*) [static]

Reads a file (plain text/gzipped)

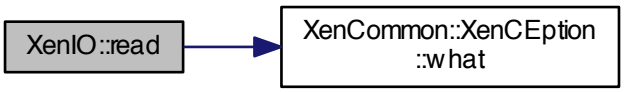
Parameters

ptrFile	: the file to read

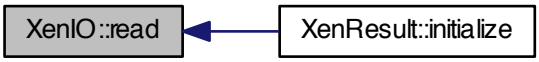
Returns

a vector of strings containing the read file's lines

Here is the call graph for this function:



Here is the caller graph for this function:



6.27.2.5 boost::shared_ptr< EvalMap > XenIO::readDist (std::string *distFile*) [static]

Reads a evaluation/best point distribution file.

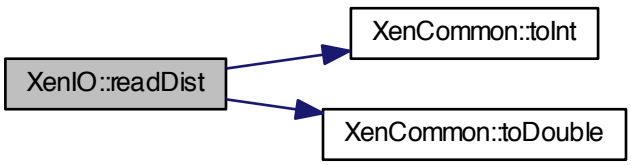
Parameters

distFile	: file to read

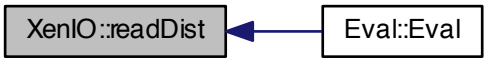
Returns

an EvalMap containing the already computed scores

Here is the call graph for this function:



Here is the caller graph for this function:



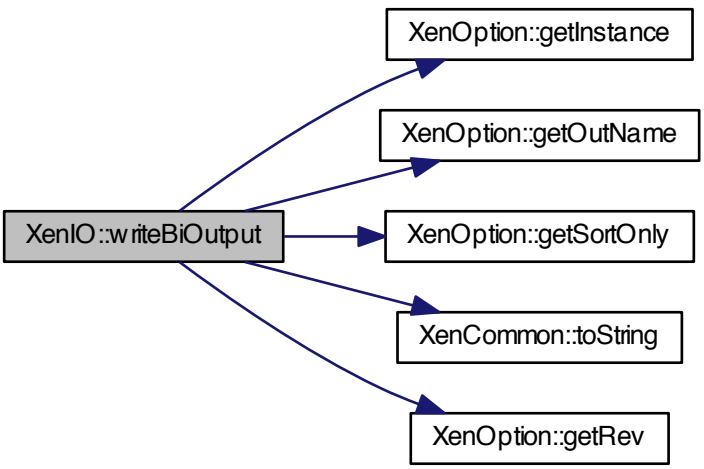
6.27.2.6 void XenIO::writeBiOutput (boost::shared_ptr< Corpus > *ptrCorpSource*, boost::shared_ptr< Corpus > *ptrCorpTarget*, boost::shared_ptr< Score > *ptrScore*) [static]

Writes bilingual scored/sorted result files.

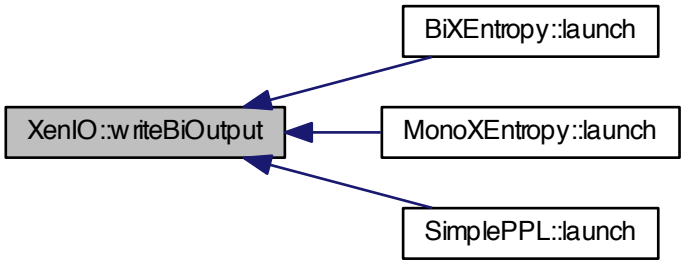
Parameters

ptrCorpSource	: the source language Corpus to write
ptrCorpTarget	: the target language Corpus to write
ptrScore	: the associated Score object to write

Here is the call graph for this function:



Here is the caller graph for this function:



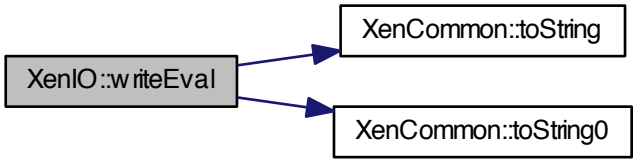
6.27.2.7 void XenIO::writeEval (boost::shared_ptr< EvalMap > *ptrEvalMap*, std::string *distName*) [static]

Writes an evaluation/best point distribution file.

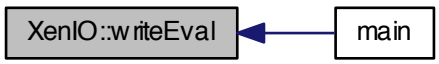
Parameters

ptrEvalMap	: the EvalMap containing the scores to write
distName	: the distribution file name

Here is the call graph for this function:



Here is the caller graph for this function:



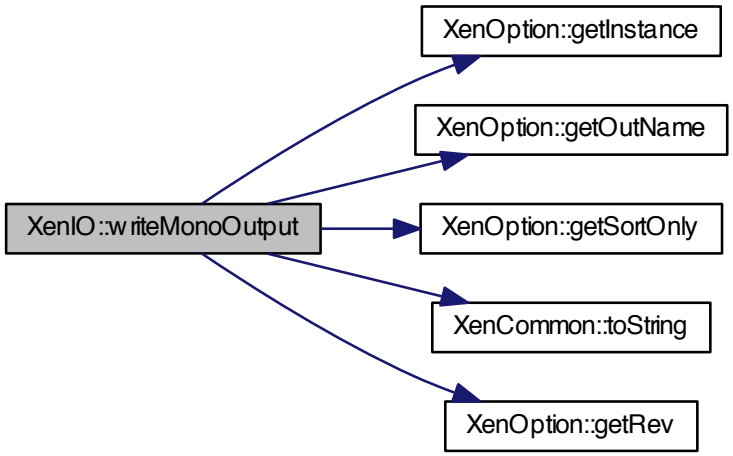
6.27.2.8 void XenIO::writeMonoOutput (boost::shared_ptr< Corpus > *ptrCorp,* boost::shared_ptr< Score > *ptrScore*) [static]

Writes monolingual scored/sorted result files.

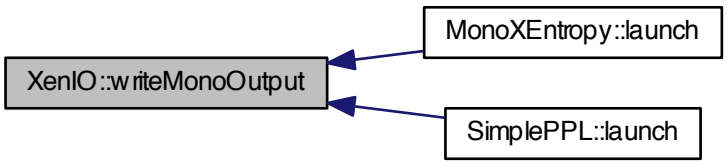
Parameters

ptrCorp	: the Corpus to write
ptrScore	: the associated Score object to write

Here is the call graph for this function:



Here is the caller graph for this function:



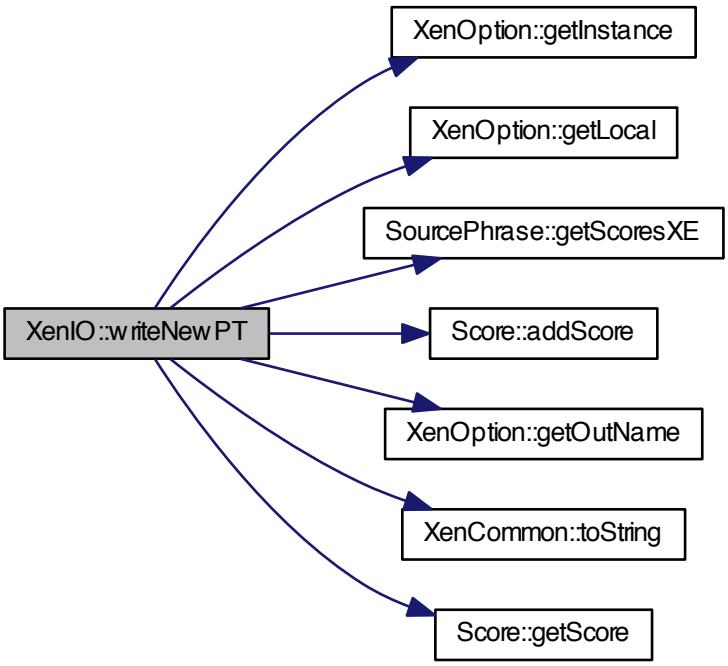
6.27.2.9 void XenIO::writeNewPT (boost::shared_ptr< PhraseTable > *ptrPT,* boost::shared_ptr< Score > *ptrScore*) [static]

Writes a new rescored phrase-table.

Parameters

ptrPT	: the new phrase-table to write
ptrScore	: the associated Score object to write

Here is the call graph for this function:



Here is the caller graph for this function:

6.27.2.10 std::string XenIO::writeSourcePhrases (boost::shared_ptr< PhraseTable > *ptrPT*) [static]

Writes a phrase-table's source phrases.

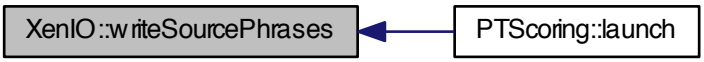
Parameters

ptrPT	: the phrase-table to write the source phrases from

Returns

the written source phrases file name

Here is the caller graph for this function:



6.27.2.11 std::string XenIO::writeTargetPhrases (boost::shared_ptr< PhraseTable > *ptrPT*) [static]

Writes a phrase-table's target phrases.

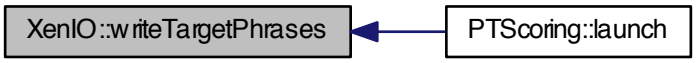
Parameters

ptrPT	: the phrase-table to write the target phrases from

Returns

the written target phrases file name

Here is the caller graph for this function:



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

- include/utils/xenio.h
- src/utils/xenio.cpp

6.28 XenLMsri Class Reference

Class handling SRI LM estimation, loading, querying...

`#include <XenLMsri.h>`

Public Member Functions

- XenLMsri ()

Default constructor.

- void initialize (boost::shared_ptr< Corpus > ptrCorp, boost::shared_ptr< XenVocab > ptrVoc)

  Initialization function from a Corpus and a vocabulary (XenVocab)

- void initialize (boost::shared_ptr< XenFile > ptrFile, boost::shared_ptr< XenVocab > ptrVoc)

  Initialization function from an already existing LM file and a vocabulary (XenVocab)

- void initialize (boost::shared_ptr< XenResult > ptrXenRes, boost::shared_ptr< XenVocab > ptrVoc, int pc, std::string name="")

  Initialization function from a XenC filtering result file and a vocabulary.

- ~XenLMsri ()

  Default destructor.

- int createLM ()

  Estimates a language model based on the provided data.

- int loadLM ()

  Loads a language model from a provided file name.

- int writeLM ()

  Writes an (arpa or binary) estimated language model on disk.

- std::string getFileName () const

  Accessor to the language model file name.

- TextStats getSentenceStats (std::string sent)

  Computes the SRILM stats of a given sentence.

- TextStats getDocumentStats (boost::shared_ptr< Corpus > ptrCorp)

  Computes the SRILM stats of a Corpus at a document level.

6.28.1 Detailed Description

Class handling SRI LM estimation, loading, querying...

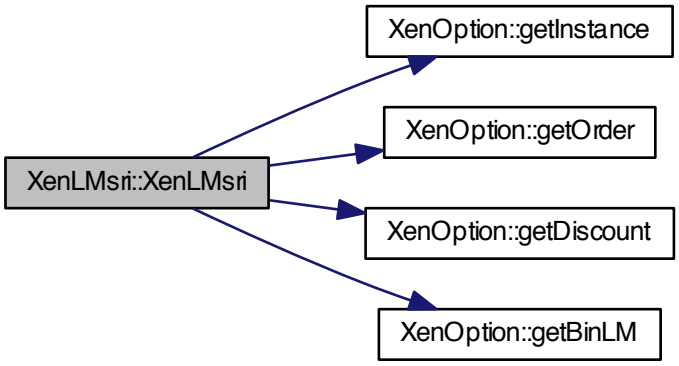
This class is in charge of handling all SRILM-related operations. Be aware that due to some memory leaks in SRILM, memory usage in XenC can grow up very fast.

6.28.2 Constructor & Destructor Documentation

6.28.2.1 XenLMsri::XenLMsri ( )

Default constructor.

Here is the call graph for this function:



6.28.2.2 XenLMsri::~XenLMsri ( )

Default destructor.

6.28.3 Member Function Documentation

6.28.3.1 int XenLMsri::createLM ( )

Estimates a language model based on the provided data.

Returns

0 if all goes well

Here is the call graph for this function:

6.28.3.2 TextStats XenLMsri::getDocumentStats (boost::shared_ptr< Corpus > *ptrCorp*)

Computes the SRILM stats of a Corpus at a document level.

Parameters

ptrCorp	: the Corpus to compute the stats from

Returns

the computed document-level SRILM stats

Here is the call graph for this function:

6.28.3.3 std::string XenLMsri::getFileName ( ) const

Accessor to the language model file name.

Returns

the language model file name

6.28.3.4 TextStats XenLMsri::getSentenceStats (std::string *sent*)

Computes the SRILM stats of a given sentence.

Parameters

sent	: the sentence to compute the stats from

Returns

the computed SRILM stats

Here is the caller graph for this function:

6.28.3.5 void XenLMsri::initialize (boost::shared_ptr< Corpus > *ptrCorp*, boost::shared_ptr< XenVocab > *ptrVoc*)

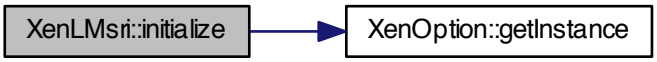
Initialization function from a Corpus and a vocabulary (XenVocab)

Parameters

ptrCorp	: the corpus to estimate the LM from
ptrVoc	: the vocabulary used to estimate the LM

< No use for a XenResult here

Here is the call graph for this function:



6.28.3.6 void XenLMsri::initialize (boost::shared_ptr< XenFile > *ptrFile,* boost::shared_ptr< XenVocab > *ptrVoc*)

Initialization function from an already existing LM file and a vocabulary (XenVocab)

Parameters

ptrFile	: the LM file to load
ptrVoc	: the vocabulary used to estimate the LM

< No use for a corpus here

< No use for a XenResult here

6.28.3.7 void XenLMsri::initialize (boost::shared_ptr< XenResult > *ptrXenRes,* boost::shared_ptr< XenVocab > *ptrVoc,* int *pc,* std::string *name* = " ")

Initialization function from a XenC filtering result file and a vocabulary.

Parameters

ptrXenRes	: the XenC filtering result file
ptrVoc	: the vocabulary used to estimate the LM
pc	: the percentage of the corpus in ptrXenRes to use
name	: optionnal file name of the LM

< No use for a corpus here

6.28.3.8 int XenLMsri::loadLM ( )

Loads a language model from a provided file name.

Returns

0 if all goes well

6.28.3.9 int XenLMsri::writeLM ( )

Writes an (arpa or binary) estimated language model on disk.

Returns

0 if all goes well

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

- include/XenLMsri.h
- src/XenLMsri.cpp

6.29 XenOption Class Reference

Singleton class handling XenC options accessors/mutators.

`#include <xenoption.h>`

Public Member Functions

- std::string getSLang () const

  Accessor to the source language.
- std::string getTLang () const

  Accessor to the target language.
- boost::shared_ptr< XenFile > getInSData () const

  Accessor to the source language in-domain data file.
- boost::shared_ptr< XenFile > getOutSData () const

  Accessor to the source language out-of-domain data file.
- boost::shared_ptr< XenFile > getInTData () const

  Accessor to the target language in-domain data file.
- boost::shared_ptr< XenFile > getOutTData () const

  Accessor to the target language out-of-domain data file.
- boost::shared_ptr< XenFile > getInSStem () const

  Accessor to the source language in-domain stem data file.
- boost::shared_ptr< XenFile > getOutSStem () const

  Accessor to the source language out-of-domain stem data file.
- boost::shared_ptr< XenFile > getInTStem () const

  Accessor to the target language in-domain stem data file.
- boost::shared_ptr< XenFile > getOutTStem () const

  Accessor to the target language out-of-domain stem data file.
- boost::shared_ptr< XenFile > getInPTable () const

  Accessor to the in-domain phrase-table file.
- boost::shared_ptr< XenFile > getOutPTable () const

  Accessor to the out-of-domain phrase-table file.
- bool getMono () const

  Accessor to the monolingual or bilingual execution state.
- int getMode () const

  Accessor to the filtering mode.
- bool getMean () const

  Accessor to the mean execution state.
- bool getSim () const

  Accessor to the similarity measures execution state.
- bool getSimOnly () const

  Accessor to the similarity measures ONLY execution state.

- int getVecSize () const

  Accessor to the similarity measures vector size.
- boost::shared_ptr< XenFile > getSVocab () const

  Accessor to the source language vocabulary file.
- boost::shared_ptr< XenFile > getTVocab () const

  Accessor to the target language vocabulary file.
- bool getFullVocab () const

  Accessor to the global vocabulary execution state.
- boost::shared_ptr< XenFile > getInSLM () const

  Accessor to the source language in-domain language model file.
- boost::shared_ptr< XenFile > getOutSLM () const

  Accessor to the source language out-of-domain language model file.
- boost::shared_ptr< XenFile > getInTLM () const

  Accessor to the target language in-domain language model file.
- boost::shared_ptr< XenFile > getOutTLM () const

  Accessor to the target language out-of-domain language model file.
- boost::shared_ptr< XenFile > getWFile () const

  Accessor to the weights file.
- boost::shared_ptr< XenFile > getDev () const

  Accessor to the development corpus file.
- int getOrder () const

  Accessor to the order for language models estimation.
- int getDiscount () const

  Accessor to the discounting method for language models estimation.
- int getBinLM () const

  Accessor to the estimated LMs output format.
- int getSampleSize () const

  Accessor to the out-of-domain Corpus current sample size.
- bool getLog () const

  Accessor to the log-domain state of values in the weights file.
- bool getRev () const

  Accessor to the reversed filtered output state.
- bool getInv () const

  Accessor to the inverted filtered output state.
- bool getStem () const

  Accessor to the stem mode execution state.
- bool getLocal () const

  Accessor to the local score for phrase-table scoring execution state.
- bool getEval () const

  Accessor to the evaluation execution state.
- bool getBp () const

  Accessor to the best point execution state.
- int getStep () const

  Accessor to the step size for evaluation/best point.
- std::string getOutName () const

  Accessor to the output name for the filtered files.
- std::string getName () const

  Accessor to the program name.
- int getThreads () const

  Accessor to the requested number of threads.
- bool getSortOnly () const

Accessor to whether we output the scored file.

- void setSampleSize (int size)

  Mutator to the out-of-domain sample size.

- void setStep (int step)

  Mutator to the evaluation/best point step size.

Static Public Member Functions

- static XenOption * getInstance ()

  Accessor to the instance of the singleton XenOption object.

- static XenOption * getInstance (LPOptions opt)

  Accessor to the instance of the singleton XenOption object.

- static void deleteInstance ()

  Deletes the unique instance of the XenOption singleton.

6.29.1 Detailed Description

Singleton class handling XenC options accessors/mutators.

6.29.2 Member Function Documentation

6.29.2.1 void XenOption::deleteInstance ( ) [static]

Deletes the unique instance of the XenOption singleton.

Here is the caller graph for this function:

6.29.2.2 int XenOption::getBinLM ( ) const

Accessor to the estimated LMs output format.

Returns

the estimated LMs output format

Here is the caller graph for this function:

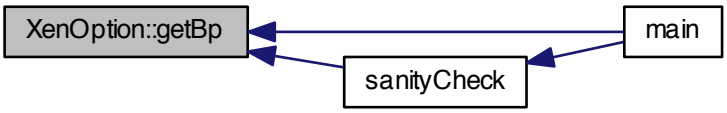
6.29.2.3 bool XenOption::getBp ( ) const

Accessor to the best point execution state.

Returns

true if we have to perform a best point search

Here is the caller graph for this function:



6.29.2.4 boost::shared_ptr< XenFile > XenOption::getDev ( ) const

Accessor to the development corpus file.

Returns

the development corpus file

Here is the caller graph for this function:

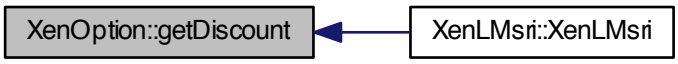
6.29.2.5 int XenOption::getDiscount ( ) const

Accessor to the discounting method for language models estimation.

Returns

the discounting method for language models estimation

Here is the caller graph for this function:



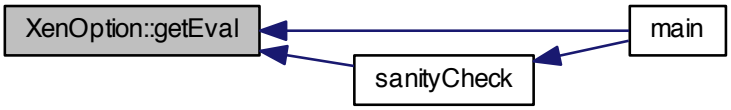
6.29.2.6 bool XenOption::getEval ( ) const

Accessor to the evaluation execution state.

Returns

true if we have to perform an evaluation

Here is the caller graph for this function:



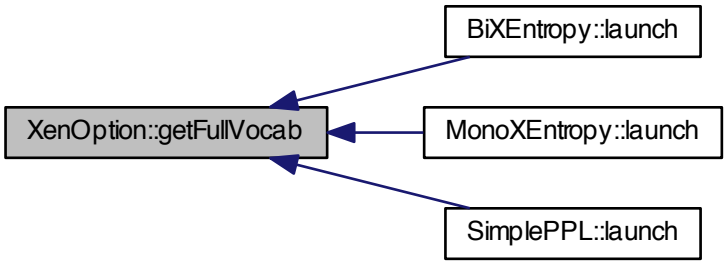
6.29.2.7 bool XenOption::getFullVocab ( ) const

Accessor to the global vocabulary execution state.

Returns

true if we use a global vocabulary instead of only in-domain

Here is the caller graph for this function:



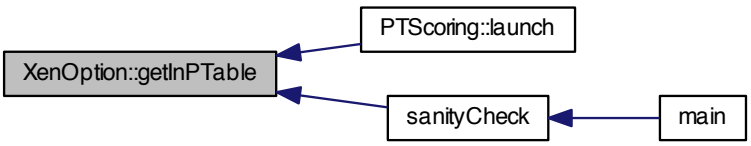
6.29.2.8 boost::shared_ptr< XenFile > XenOption::getInPTable ( ) const

Accessor to the in-domain phrase-table file.

Returns

the in-domain phrase-table file

Here is the caller graph for this function:



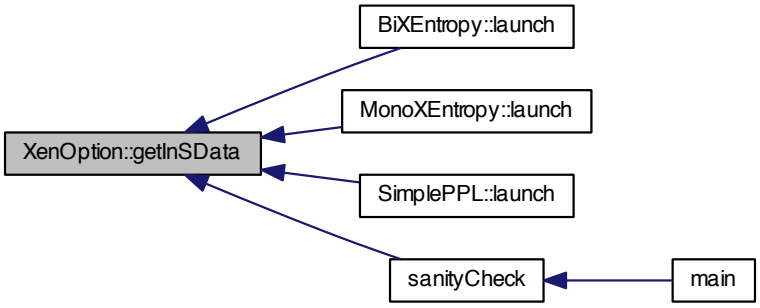
6.29.2.9 boost::shared_ptr< XenFile > XenOption::getInSData ( ) const

Accessor to the source language in-domain data file.

Returns

the source language in-domain data file

Here is the caller graph for this function:



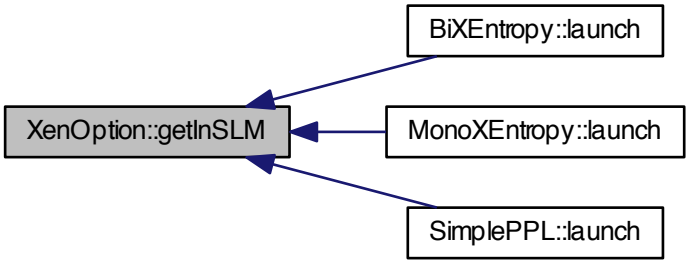
6.29.2.10 boost::shared_ptr< XenFile > XenOption::getInSLM ( ) const

Accessor to the source language in-domain language model file.

Returns

the source language in-domain language model file

Here is the caller graph for this function:



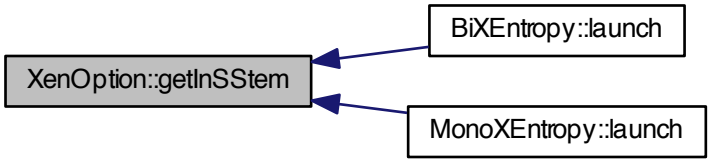
6.29.2.11 boost::shared_ptr< XenFile > XenOption::getInSStem ( ) const

Accessor to the source language in-domain stem data file.

Returns

the source language in-domain stem data file

Here is the caller graph for this function:



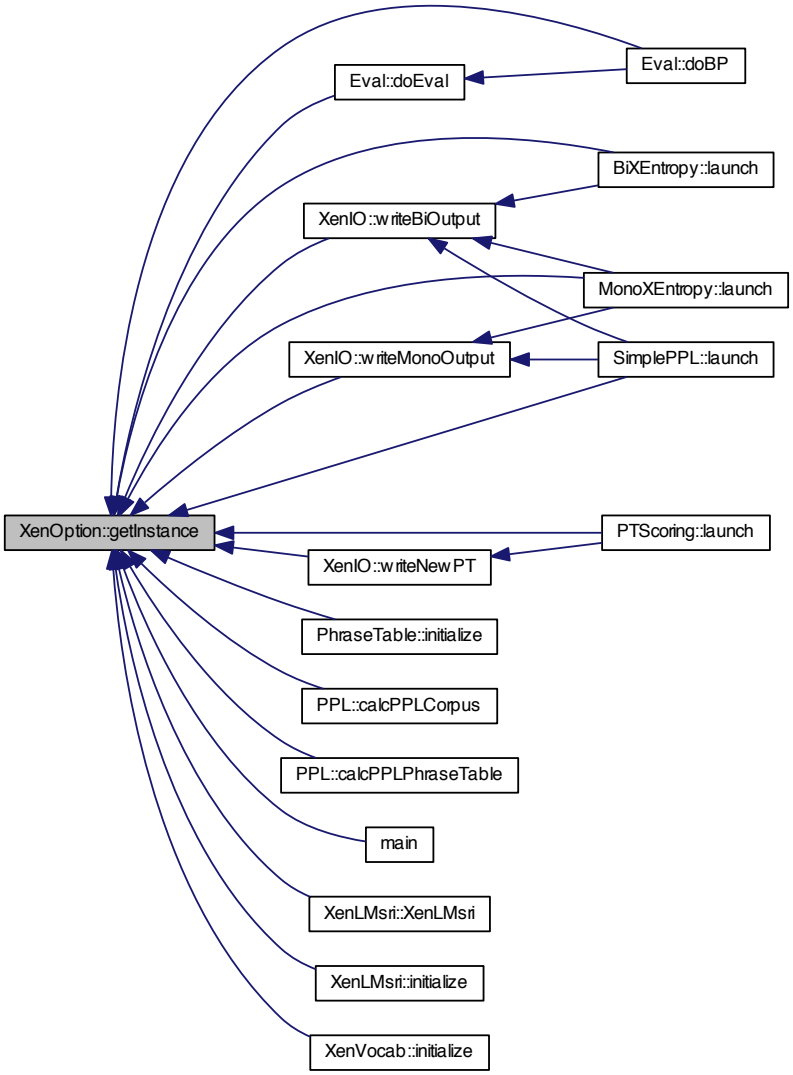
6.29.2.12 XenOption * XenOption::getInstance ( ) [static]

Accessor to the instance of the singleton XenOption object.

Returns

the XenOption unique instance

Here is the caller graph for this function:



6.29.2.13 XenOption * XenOption::getInstance (LPOptions *opt*) [static]

Accessor to the instance of the singleton XenOption object.

Parameters

opt	: the LPOptions struct to build the XenOption object from

Returns

the XenOption unique instance

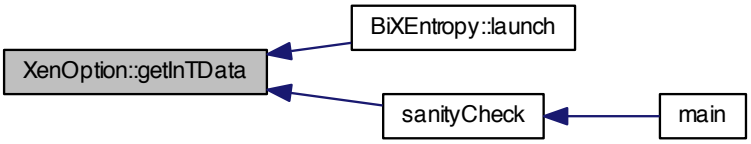
6.29.2.14 boost::shared_ptr< XenFile > XenOption::getInTData ( ) const

Accessor to the target language in-domain data file.

Returns

the target language in-domain data file

Here is the caller graph for this function:



6.29.2.15 boost::shared_ptr< XenFile > XenOption::getInTLM ( ) const

Accessor to the target language in-domain language model file.

Returns

the target language in-domain language model file

Here is the caller graph for this function:

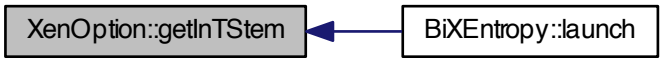
6.29.2.16 boost::shared_ptr< XenFile > XenOption::getInTStem ( ) const

Accessor to the target language in-domain stem data file.

Returns

the target language in-domain stem data file

Here is the caller graph for this function:



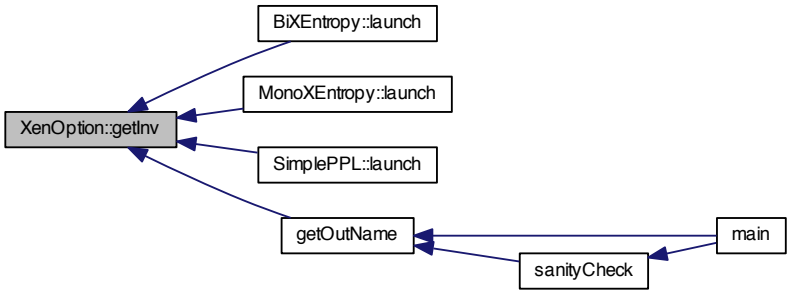
6.29.2.17 bool XenOption::getInv ( ) const

Accessor to the inverted filtered output state.

Returns

true if we output inverted scores (1 - score)

Here is the caller graph for this function:



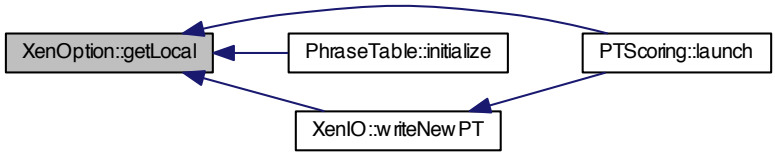
6.29.2.18 bool XenOption::getLocal ( ) const

Accessor to the local score for phrase-table scoring execution state.

Returns

true if we also compute local scores in phrase-table scoring mode

Here is the caller graph for this function:



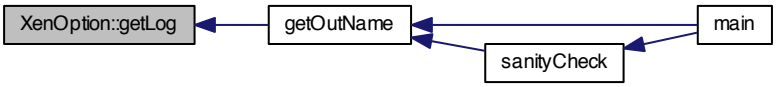
6.29.2.19 bool XenOption::getLog ( ) const

Accessor to the log-domain state of values in the weights file.

Returns

true if values in the weights file are in the log-domain

Here is the caller graph for this function:



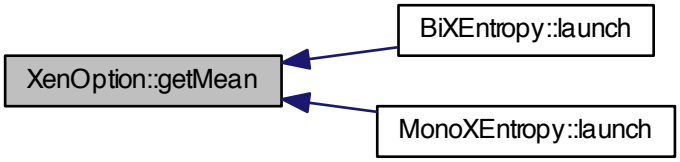
6.29.2.20 bool XenOption::getMean ( ) const

Accessor to the mean execution state.

Returns

true if we compute out-of-domain scores with mean of 3 LMs

Here is the caller graph for this function:



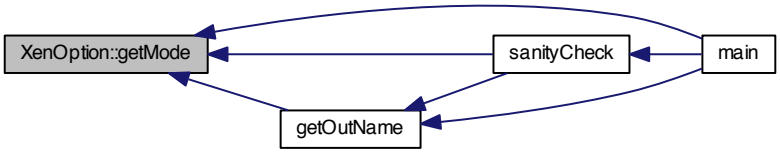
6.29.2.21 int XenOption::getMode ( ) const

Accessor to the filtering mode.

Returns

the filtering mode

Here is the caller graph for this function:



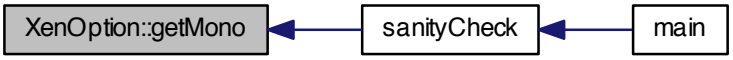
6.29.2.22 bool XenOption::getMono ( ) const

Accessor to the monolingual or bilingual execution state.

Returns

true if we work on monolingual data

Here is the caller graph for this function:



6.29.2.23 std::string XenOption::getName ( ) const

Accessor to the program name.

Returns

the program name

6.29.2.24 int XenOption::getOrder ( ) const

Accessor to the order for language models estimation.

Returns

the order for language models estimation

Here is the caller graph for this function:

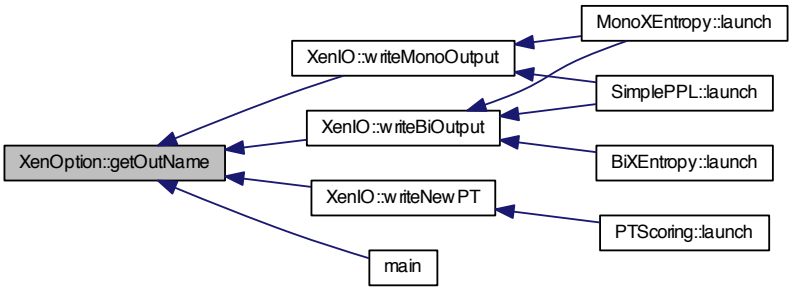
6.29.2.25 std::string XenOption::getOutName ( ) const

Accessor to the output name for the filtered files.

Returns

the output name for the filtered files

Here is the caller graph for this function:



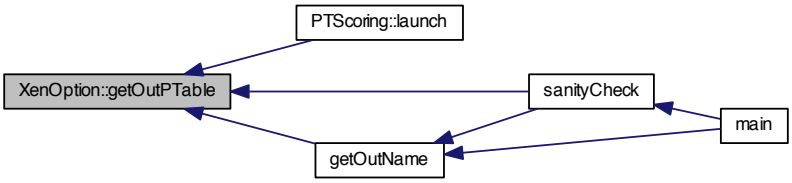
6.29.2.26 boost::shared_ptr< XenFile > XenOption::getOutPTable ( ) const

Accessor to the out-of-domain phrase-table file.

Returns

the out-of-domain phrase-table file

Here is the caller graph for this function:



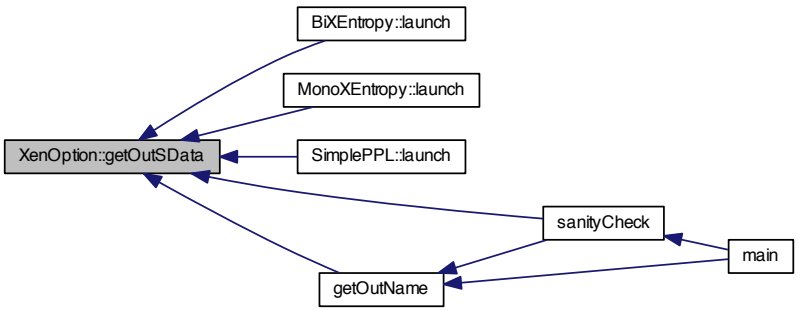
6.29.2.27 boost::shared_ptr< XenFile > XenOption::getOutSData ( ) const

Accessor to the source language out-of-domain data file.

Returns

the source language out-of-domain data file

Here is the caller graph for this function:



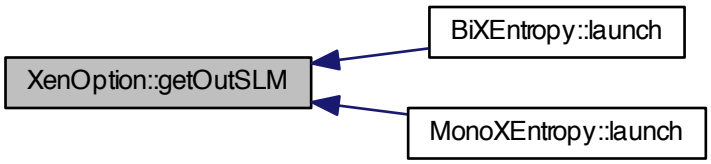
6.29.2.28 boost::shared_ptr< XenFile > XenOption::getOutSLM ( ) const

Accessor to the source language out-of-domain language model file.

Returns

the source language out-of-domain language model file

Here is the caller graph for this function:



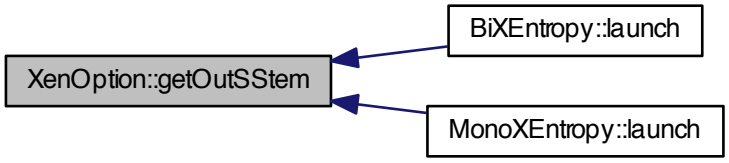
6.29.2.29 boost::shared_ptr< XenFile > XenOption::getOutSStem ( ) const

Accessor to the source language out-of-domain stem data file.

Returns

the source language out-of-domain stem data file

Here is the caller graph for this function:



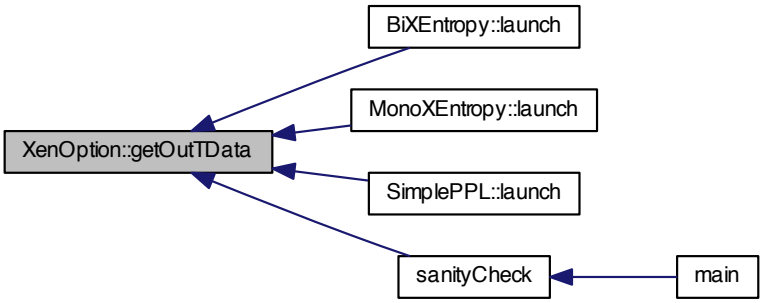
6.29.2.30 boost::shared_ptr< XenFile > XenOption::getOutTData ( ) const

Accessor to the target language out-of-domain data file.

Returns

the target language out-of-domain data file

Here is the caller graph for this function:



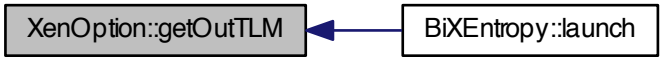
6.29.2.31 boost::shared_ptr< XenFile > XenOption::getOutTLM ( ) const

Accessor to the target language out-of-domain language model file.

Returns

the target language out-of-domain language model file

Here is the caller graph for this function:



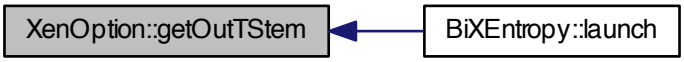
6.29.2.32 boost::shared_ptr< XenFile > XenOption::getOutTStem ( ) const

Accessor to the target language out-of-domain stem data file.

Returns

the target language out-of-domain stem data file

Here is the caller graph for this function:



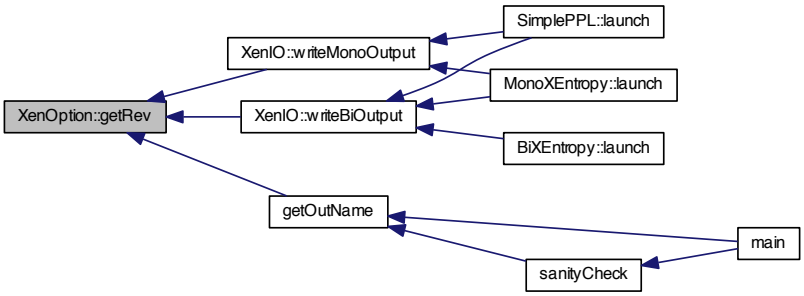
6.29.2.33 bool XenOption::getRev ( ) const

Accessor to the reversed filtered output state.

Returns

true if we output a descending order filtered file

Here is the caller graph for this function:



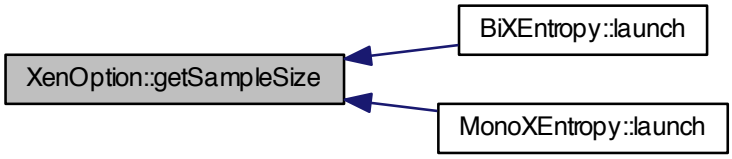
6.29.2.34 int XenOption::getSampleSize ( ) const

Accessor to the out-of-domain Corpus current sample size.

Returns

the out-of-domain Corpus current sample size

Here is the caller graph for this function:



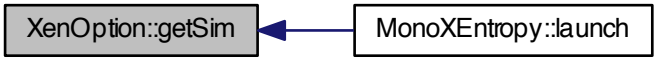
6.29.2.35 bool XenOption::getSim ( ) const

Accessor to the similarity measures execution state.

Returns

true if we compute similarity measures

Here is the caller graph for this function:



6.29.2.36 bool XenOption::getSimOnly ( ) const

Accessor to the similarity measures ONLY execution state.

Returns

true if we compute similarity measures ONLY

Here is the caller graph for this function:

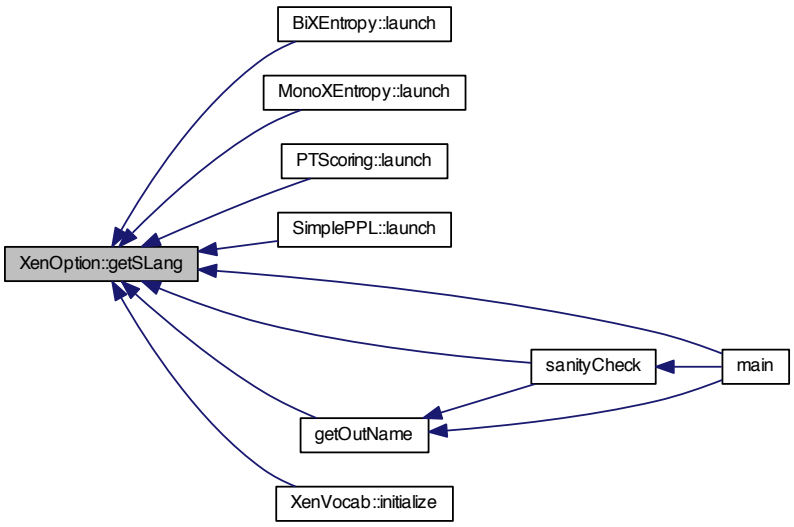
6.29.2.37 std::string XenOption::getSLang ( ) const

Accessor to the source language.

Returns

the source language

Here is the caller graph for this function:



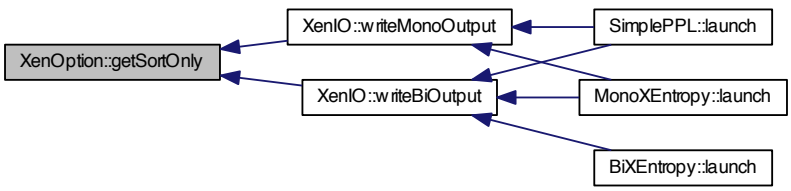
6.29.2.38 bool XenOption::getSortOnly ( ) const

Accessor to whether we output the scored file.

Returns

true if we only need to output the sorted file

Here is the caller graph for this function:



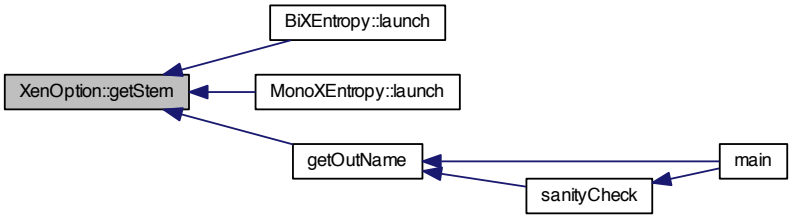
6.29.2.39 bool XenOption::getStem ( ) const

Accessor to the stem mode execution state.

Returns

true if we work with stem Corpus too

Here is the caller graph for this function:



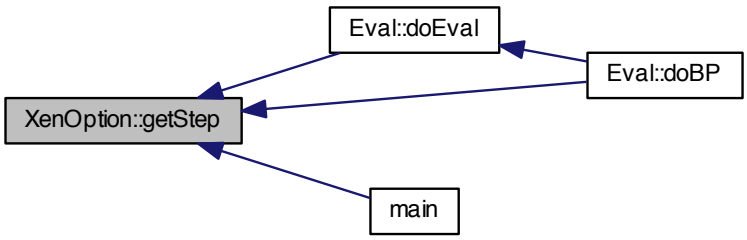
6.29.2.40 int XenOption::getStep ( ) const

Accessor to the step size for evaluation/best point.

Returns

the step size for evaluation/best point

Here is the caller graph for this function:



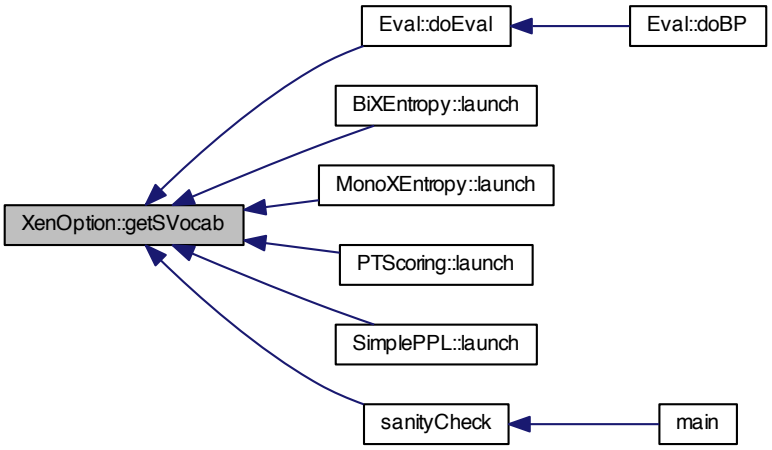
6.29.2.41 boost::shared_ptr< XenFile > XenOption::getSVocab ( ) const

Accessor to the source language vocabulary file.

Returns

the source language vocabulary file

Here is the caller graph for this function:



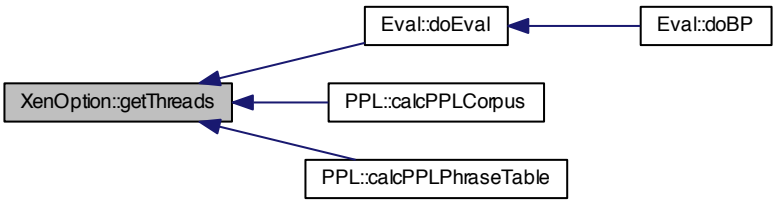
6.29.2.42 int XenOption::getThreads ( ) const

Accessor to the requested number of threads.

Returns

the requested number of threads

Here is the caller graph for this function:



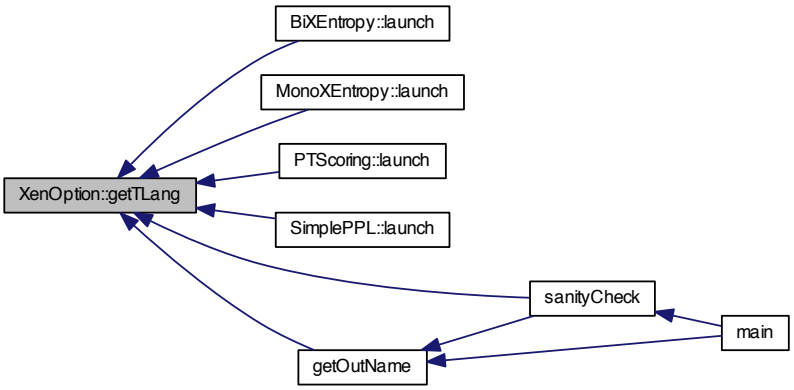
6.29.2.43 std::string XenOption::getTLang ( ) const

Accessor to the target language.

Returns

the target language

Here is the caller graph for this function:



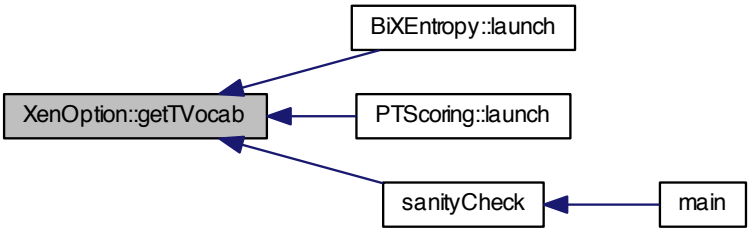
6.29.2.44 boost::shared_ptr< XenFile > XenOption::getTVocab ( ) const

Accessor to the target language vocabulary file.

Returns

the target language vocabulary file

Here is the caller graph for this function:



6.29.2.45 int XenOption::getVecSize ( ) const

Accessor to the similarity measures vector size.

Returns

the similarity measures vector size

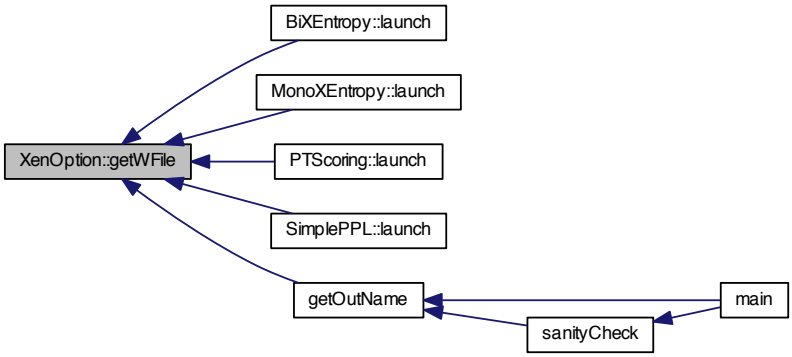
6.29.2.46 boost::shared_ptr< XenFile > XenOption::getWFile ( ) const

Accessor to the weights file.

Returns

the weights file

Here is the caller graph for this function:



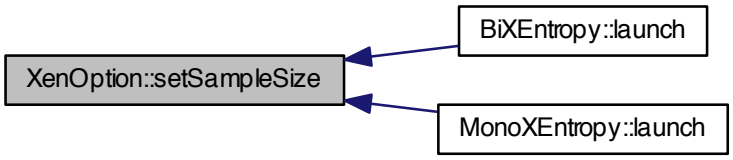
6.29.2.47 void XenOption::setSampleSize (int *size*)

Mutator to the out-of-domain sample size.

Parameters

size	: the out-of-domain sample size

Here is the caller graph for this function:



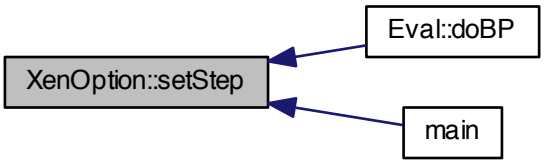
6.29.2.48 void XenOption::setStep (int *step*)

Mutator to the evaluation/best point step size.

Parameters

step	: the evaluation/best point step size

Here is the caller graph for this function:



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

- include/xenoption.h
- src/xenoption.cpp

6.30 XenResult Class Reference

Class handling a XenC sorted result file for evaluation/best point.

`#include <xenresult.h>`

Public Member Functions

- XenResult ()

  Default constructor.
- void initialize (boost::shared_ptr< XenFile > ptrFile)

  Initialization function from an already instantiated XenFile.
- ~XenResult ()

  Default destructor.
- std::vector< std::string > getSortedText () const

  Accessor to the sorted corpus text.
- std::string getTextLine (int n)

  Accessor to the nth line of the sorted corpus text.
- unsigned int getSize () const

  Accessor to the size of the sorted corpus text.
- boost::shared_ptr< XenFile > getXenFile () const

  Accessor to the sorted result file.

6.30.1 Detailed Description

Class handling a XenC sorted result file for evaluation/best point.

6.30.2 Constructor & Destructor Documentation

6.30.2.1 XenResult::XenResult ( )

Default constructor.

6.30.2.2 XenResult::~XenResult ( )

Default destructor.

6.30.3 Member Function Documentation

6.30.3.1 unsigned int XenResult::getSize ( ) const

Accessor to the size of the sorted corpus text.

Returns

the size of the sorted corpus text

6.30.3.2 std::vector< std::string > XenResult::getSortedText ( ) const

Accessor to the sorted corpus text.

Returns

the sorted corpus text

6.30.3.3 std::string XenResult::getTextLine (int *n*)

Accessor to the nth line of the sorted corpus text.

Parameters

n	: the number of the text line to get

Returns

the requested nth line of text

6.30.3.4 boost::shared_ptr< XenFile > XenResult::getXenFile ( ) const

Accessor to the sorted result file.

Returns

the sorted result file

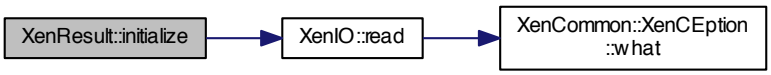
6.30.3.5 void XenResult::initialize (boost::shared_ptr< XenFile > *ptrFile*)

Initialization function from an already instantiated XenFile.

Parameters

ptrFile	: the sorted result file

Here is the call graph for this function:



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

- include/xenresult.h
- src/xenresult.cpp

6.31 XenVocab Class Reference

Class handling a XenC vocabulary.

`#include <xenvocab.h>`

Public Member Functions

- XenVocab ()
  Default constructor.
- void initialize (boost::shared_ptr< XenFile > ptrFile)
  Initialization function from an already instantiated XenFile.
- void initialize (boost::shared_ptr< Corpus > ptrCorp)
  Initialization function from a Corpus.
- void initialize (boost::shared_ptr< Corpus > ptrInCorp, boost::shared_ptr< Corpus > ptrOutCorp)
  Initialization function from two Corpus.
- void initialize (boost::shared_ptr< XenResult > ptrXenRes)
  Initialization function from a sorted result file.
- ~XenVocab ()
  Default destructor.
- boost::shared_ptr< Vocab > getVocab () const
  Accessor to the SRILM Vocab object.
- std::map< std::string, int > getXenVocab () const
  Accessor to the XenC vocabulary object.
- boost::shared_ptr< XenFile > getXenFile () const
  Accessor to the vocabulary file.
- unsigned int getSize () const
  Accessor to the size of the vocabulary text.

6.31.1 Detailed Description

Class handling a XenC vocabulary.

6.31.2 Constructor & Destructor Documentation

6.31.2.1 XenVocab::XenVocab ( )

Default constructor.

6.31.2.2 XenVocab::~XenVocab ( )

Default destructor.

6.31.3 Member Function Documentation

6.31.3.1 unsigned int XenVocab::getSize ( ) const

Accessor to the size of the vocabulary text.

Returns

the size of the vocabulary text

6.31.3.2 boost::shared_ptr< Vocab > XenVocab::getVocab ( ) const

Accessor to the SRILM Vocab object.

Returns

the SRILM Vocab object

6.31.3.3 boost::shared_ptr< XenFile > XenVocab::getXenFile ( ) const

Accessor to the vocabulary file.

Returns

the vocabulary file

6.31.3.4 std::map< std::string, int > XenVocab::getXenVocab ( ) const

Accessor to the XenC vocabulary object.

Returns

the XenC vocabulary object

6.31.3.5 void XenVocab::initialize (boost::shared_ptr< XenFile > *ptrFile*)

Initialization function from an already instantiated XenFile.

Parameters

ptrFile	: the vocabulary file

6.31.3.6 void XenVocab::initialize (boost::shared_ptr< Corpus > *ptrCorp*)

Initialization function from a Corpus.

Parameters

ptrCorp	: the Corpus to extract the vocabulary from

6.31.3.7 void XenVocab::initialize (boost::shared_ptr< Corpus > *ptrInCorp*, boost::shared_ptr< Corpus > *ptrOutCorp*)

Initialization function from two Corpus.

Parameters

ptrInCorp	: the in-domain Corpus to extract the vocabulary from
ptrOutCorp	: the out-of-domain Corpus to extract the vocabulary from

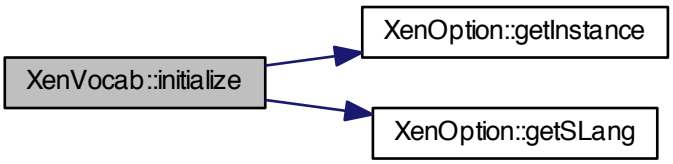
6.31.3.8 void XenVocab::initialize (boost::shared_ptr< XenResult > *ptrXenRes*)

Initialization function from a sorted result file.

Parameters

ptrXenRes	: the sorted result file to extract the vocabulary from

Here is the call graph for this function:



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

- include/xenvocab.h
- src/xenvocab.cpp

Chapter 7

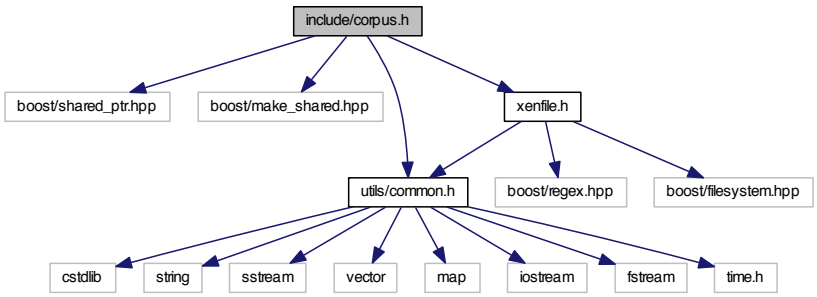
File Documentation

7.1 include/corpus.h File Reference

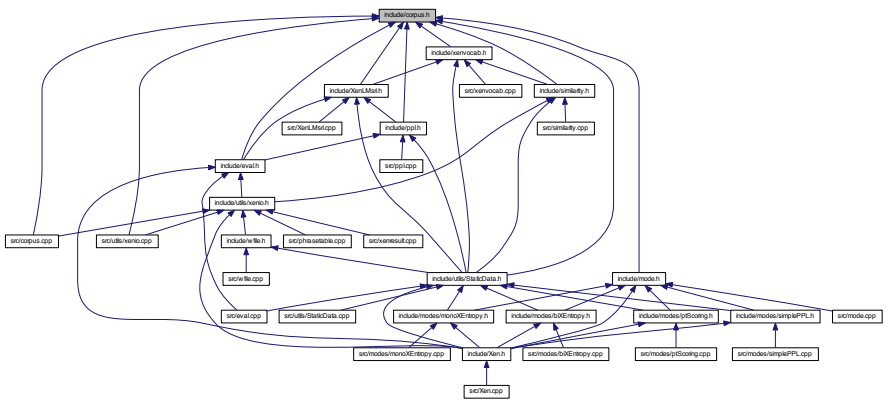
Class handling corpus-related functionalities.

```
#include <boost/shared_ptr.hpp>
#include <boost/make_shared.hpp>
#include "utils/common.h"
#include "xenfile.h"
```

Include dependency graph for corpus.h:



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



Classes

- class Corpus

  Corpus-related functionalities.

7.1.1 Detailed Description

Class handling corpus-related functionalities.

Author

Anthony Rousseau

Version

1.1.0

Date

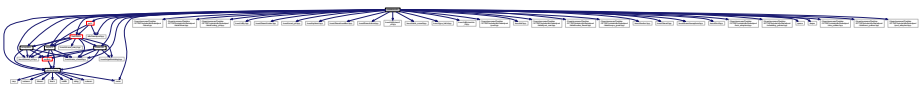
13 August 2013

7.2 include/eval.h File Reference

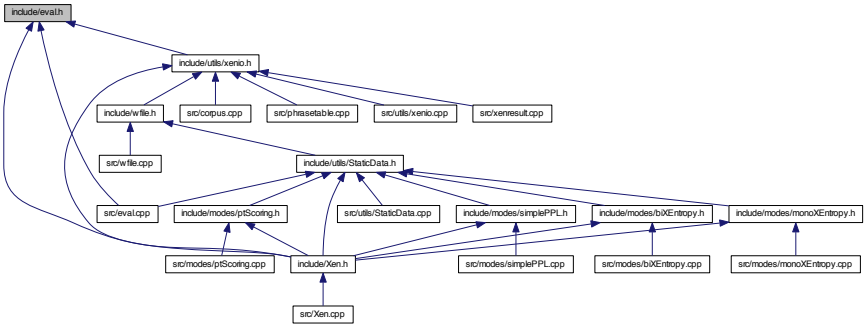
Class handling evaluation system.

```
#include <boost/shared_ptr.hpp>
#include <boost/make_shared.hpp>
#include "utils/common.h"
#include "utils/threadpool.hpp"
#include "corpus.h"
#include "xenoption.h"
#include "XenLMsri.h"
#include "ppl.h"
#include "xenresult.h"
```

Include dependency graph for eval.h:



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



Classes

- class Eval

  Evaluation system.

Typedefs

- typedef std::map< int, double, std::greater< int > > EvalMap

  descending ordered map on integers as keys and doubles as values

Functions

- void taskEval (int pc, boost::shared_ptr< XenResult > ptrXR, boost::shared_ptr< XenVocab > ptrVoc, boost::shared_ptr< Corpus > ptrDevCorp, boost::shared_ptr< EvalMap > ptrDist)

  Thread-safe evaluation function.

7.2.1 Detailed Description

Class handling evaluation system.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.2.2 Typedef Documentation

7.2.2.1 typedef std::map<int, double, std::greater<int> > EvalMap

descending ordered map on integers as keys and doubles as values

7.2.3 Function Documentation

7.2.3.1 void taskEval (int *pc*, boost::shared_ptr< XenResult > *ptrXR*, boost::shared_ptr< XenVocab > *ptrVoc*, boost::shared_ptr< Corpus > *ptrDevCorp*, boost::shared_ptr< EvalMap > *ptrDist*)

Thread-safe evaluation function.

Parameters

pc	: integer representing the percentage of the scored out-of-domain corpus to take
ptrXR	: shared pointer on the XenResult object representing the selection result file
ptrVoc	: shared pointer on the XenVocab object representing the vocabulary to use for eval
ptrDevCorp	: shared pointer on the Corpus object representing the development set
ptrDist	: shared pointer on the EvalMap type containing the evaluation scores

Here is the call graph for this function:

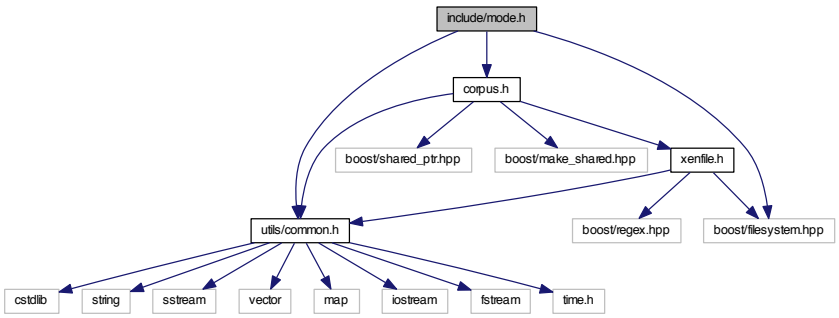
Here is the caller graph for this function:

7.3 include/mode.h File Reference

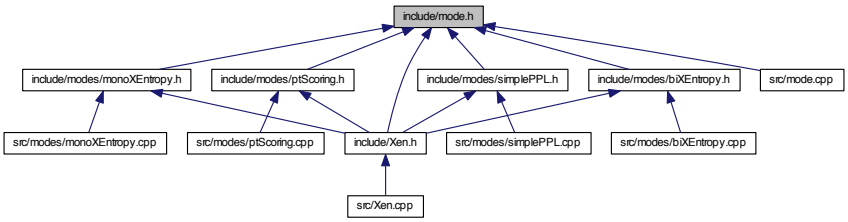
Abstract class defining the filtering modes architecture.

```
#include "corpus.h"
#include "utils/common.h"
#include <boost/filesystem.hpp>
```

Include dependency graph for mode.h:



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



Classes

- class Mode

  Filtering modes interface.

7.3.1 Detailed Description

Abstract class defining the filtering modes architecture.

Author

Anthony Rousseau

Version

1.1.0

Date

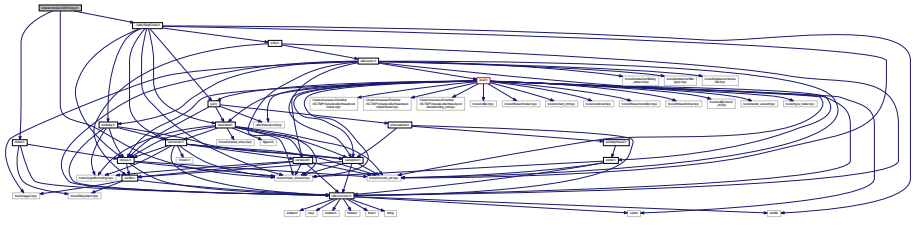
13 August 2013

7.4 include/modes/biXEntropy.h File Reference

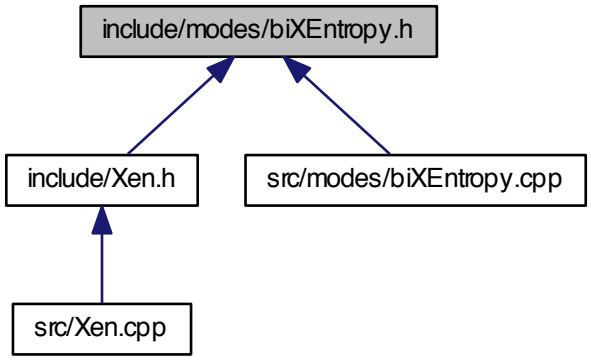
Derived class to handle filtering mode 3: bilingual cross-entropy.

```
#include <boost/make_shared.hpp>
#include "mode.h"
#include "../utils/StaticData.h"
```

Include dependency graph for biXEntropy.h:



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



Classes

- class BiXEntropy

  Filtering mode 3: bilingual cross-entropy.

7.4.1 Detailed Description

Derived class to handle filtering mode 3: bilingual cross-entropy.

Author

Anthony Rousseau

Version

1.1.0

Date

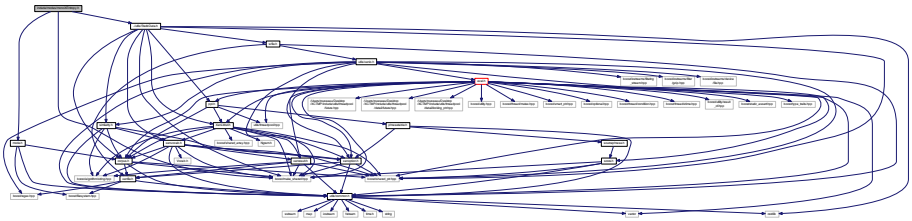
13 August 2013

7.5 include/modes/monoXEntropy.h File Reference

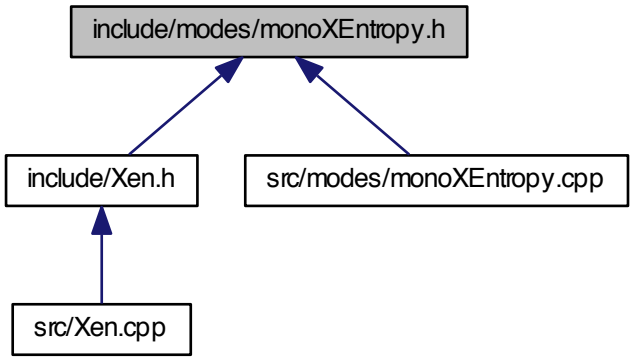
Derived class to handle filtering mode 2: monolingual cross-entropy.

```
#include <boost/make_shared.hpp>
#include "mode.h"
#include "../utils/StaticData.h"
```

Include dependency graph for monoXEntropy.h:



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



Classes

- class MonoXEntropy

  Filtering mode 2: monolingual cross-entropy.

7.5.1 Detailed Description

Derived class to handle filtering mode 2: monolingual cross-entropy.

Author

Anthony Rousseau

Version

1.1.0

Date

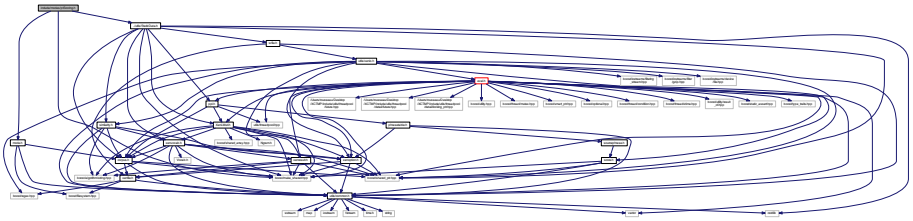
13 August 2013

7.6 include/modes/ptScoring.h File Reference

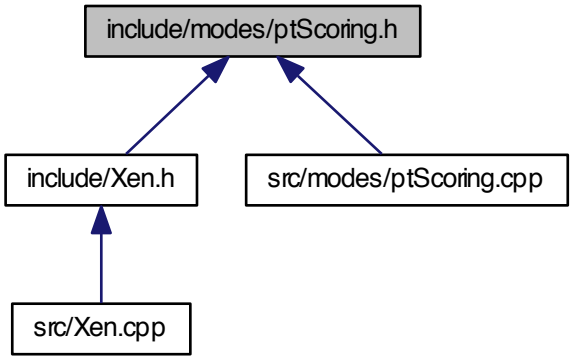
Derived class to handle filtering mode 4: phrase-table cross-entropy.

```
#include <boost/make_shared.hpp>
#include "mode.h"
#include "../utils/StaticData.h"
```

Include dependency graph for ptScoring.h:



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



Classes

- class PTScoring

  Filtering mode 4: phrase-table cross-entropy.

7.6.1 Detailed Description

Derived class to handle filtering mode 4: phrase-table cross-entropy.

Author

Anthony Rousseau

Version

1.1.0

Date

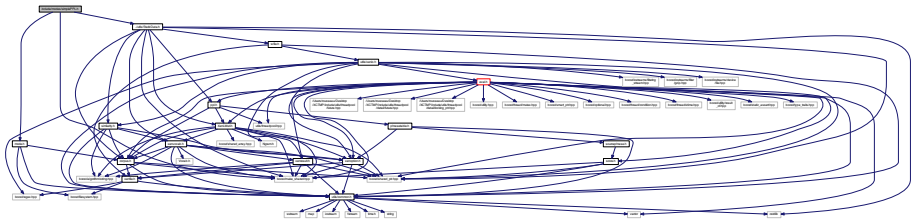
13 August 2013

7.7 include/modes/simplePPL.h File Reference

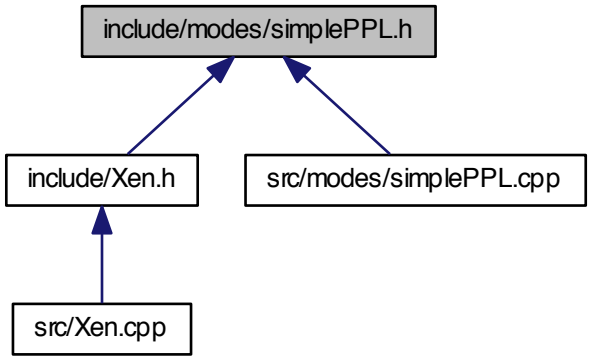
Derived class to handle filtering mode 1: simple perplexity.

```
#include <boost/make_shared.hpp>
#include "mode.h"
#include "../utils/StaticData.h"
```

Include dependency graph for simplePPL.h:



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



Classes

- class SimplePPL

  Filtering mode 1: simple perplexity.

7.7.1 Detailed Description

Derived class to handle filtering mode 1: simple perplexity.

Author

Anthony Rousseau

Version

1.1.0

Date

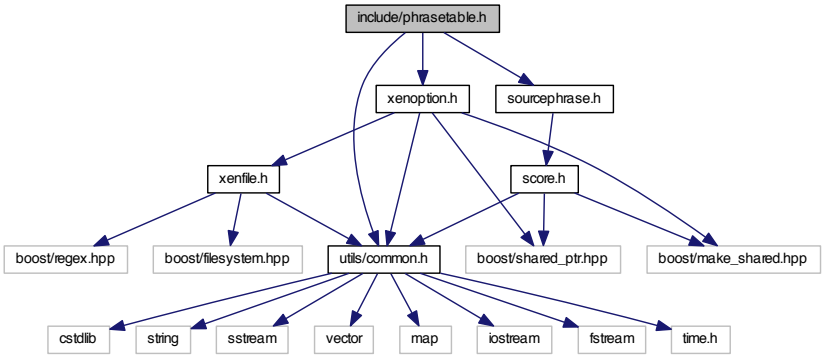
13 August 2013

7.8 include/phrasetable.h File Reference

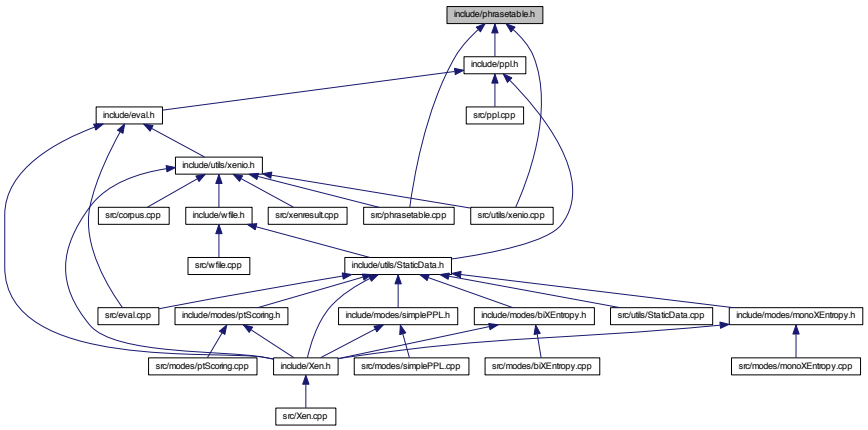
Class handling phrase-table related functionalities.

```
#include "utils/common.h"
#include "xenoption.h"
#include "sourcephrase.h"
```

Include dependency graph for phrasetable.h:



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



Classes

- class PhraseTable

  Class handling phrase-table related functionalities.

7.8.1 Detailed Description

Class handling phrase-table related functionalities.

Author

Anthony Rousseau

Version

1.1.0

Date

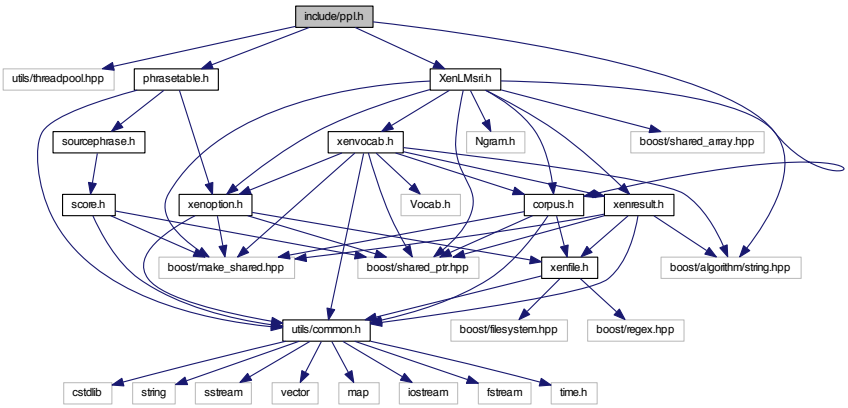
13 August 2013

7.9 include/ppl.h File Reference

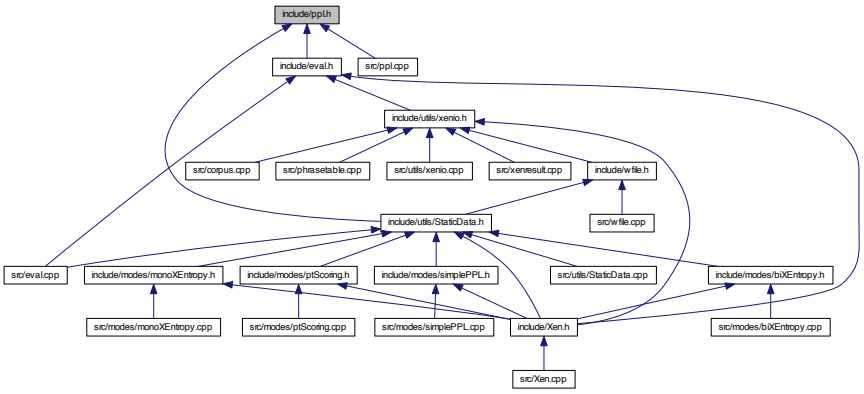
Class handling the perplexity/cross-entropy computations.

```
#include "utils/threadpool.hpp"
#include "corpus.h"
#include "phrasetable.h"
#include "XenLMsri.h"
```

Include dependency graph for ppl.h:



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



Classes

- class PPL

  Perplexity/Cross-entropy computations.

Functions

- void taskCalcPPL (int numLine, std::string line, boost::shared_ptr< std::vector< double > > ptrPPL, boost::shared_ptr< XenLMsri > ptrLM)

  Thread-safe perplexity computation function.

7.9.1 Detailed Description

Class handling the perplexity/cross-entropy computations.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.9.2 Function Documentation

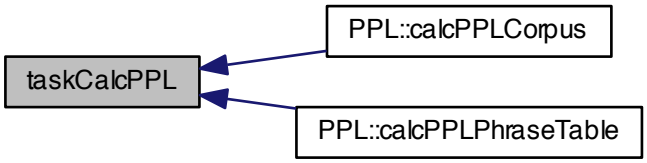
7.9.2.1 void taskCalcPPL (int *numLine*, std::string *line*, boost::shared_ptr< std::vector< double > > *ptrPPL*, boost::shared_ptr< XenLMsri > *ptrLM*)

Thread-safe perplexity computation function.

Parameters

numLine	: integer to the line number to compute perplexity for
line	: string to the text line to compute perplexity for
ptrPPL	: shared pointer on the vector of doubles containing the perplexity scores
ptrLM	: shared pointer on the language model to compute perplexity and cross-entropy from

Here is the caller graph for this function:

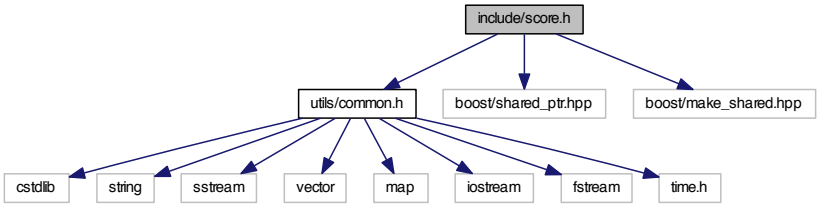


7.10 include/score.h File Reference

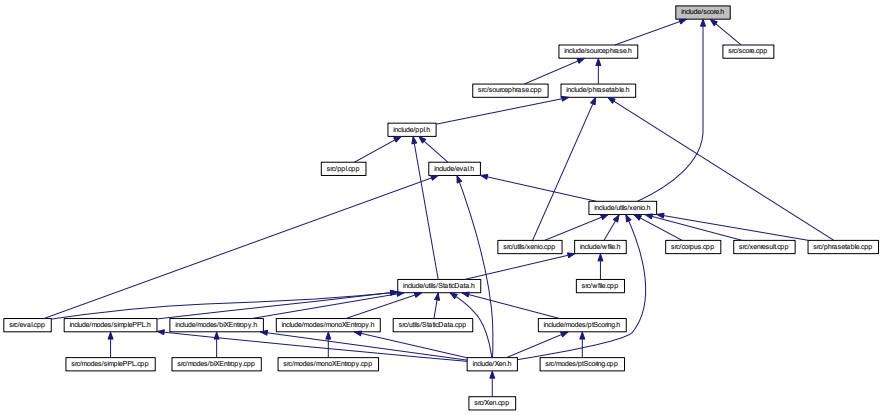
Class holding the XenC scores representation.

```
#include "utils/common.h"
#include <boost/shared_ptr.hpp>
#include <boost/make_shared.hpp>
```

Include dependency graph for score.h:



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



Classes

- class Score

  Class holding the XenC scores representation.

7.10.1 Detailed Description

Class holding the XenC scores representation.

Author

Anthony Rousseau

Version

1.1.0

Date

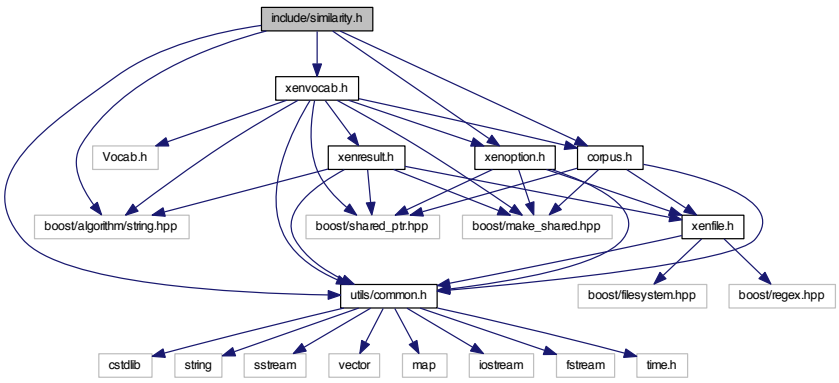
13 August 2013

7.11 include/similarity.h File Reference

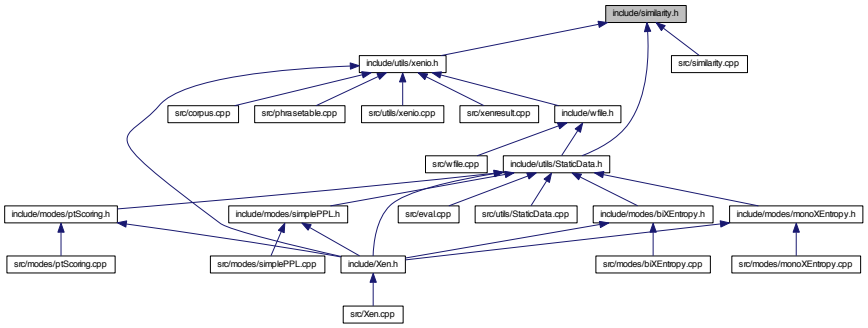
Class taking care of all the similarity measure computations.

```
#include <boost/algorithm/string.hpp>
#include "utils/common.h"
#include "corpus.h"
#include "xenvocab.h"
#include "xenoption.h"
```

Include dependency graph for similarity.h:



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



Classes

- class Similarity

  Class taking care of all the similarity measure computations.

Typedefs

- typedef std::map< int, float > SimMap

  Map of integers as keys and floats as values to represent the similarity measures by sentence number.

7.11.1 Detailed Description

Class taking care of all the similarity measure computations.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.11.2 Typedef Documentation

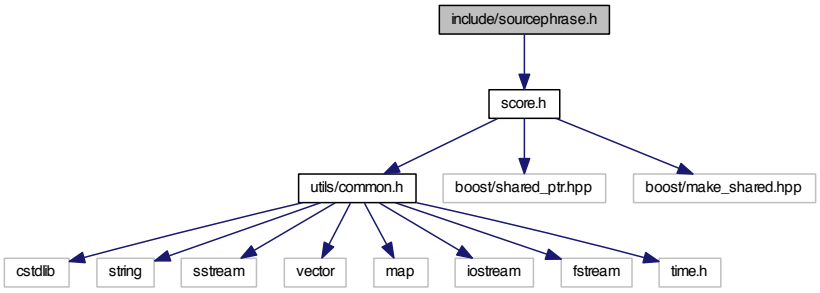
7.11.2.1 typedef std::map<int, float> SimMap

Map of integers as keys and floats as values to represent the similarity measures by sentence number.

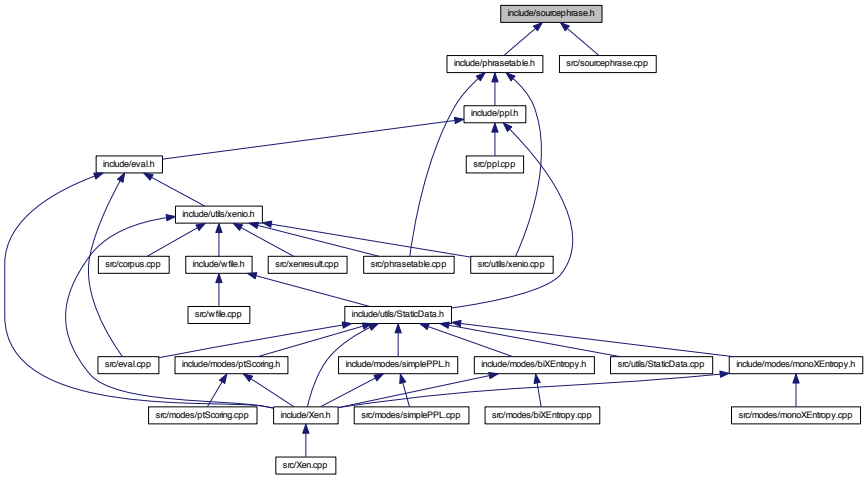
7.12 include/sourcephrase.h File Reference

Class holding a merged source phrase and all associated data.

`#include "score.h"`
Include dependency graph for sourcephrase.h:



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



Classes

- class SourcePhrase

  Class holding a merged source phrase and all associated data.

7.12.1 Detailed Description

Class holding a merged source phrase and all associated data.

Author

Anthony Rousseau

Version

1.1.0

Date

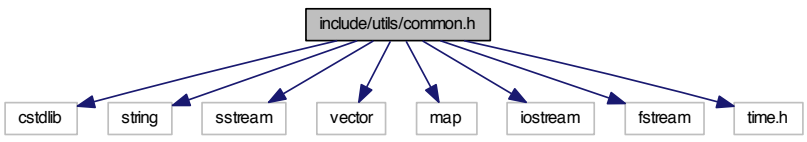
13 August 2013

7.13 include/utils/common.h File Reference

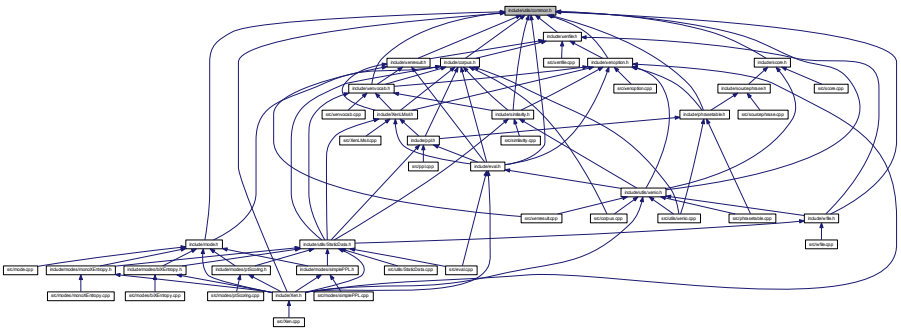
File containing all common classes/structures/functions of many classes of XenC.

```
#include <cstdlib>
#include <string>
#include <sstream>
#include <vector>
#include <map>
#include <iostream>
#include <fstream>
#include <time.h>
```

Include dependency graph for common.h:



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



Classes

- struct _Options

  XenC options structure.
- struct XenCommon::XenCEption

  XenC exception structure.
- class XenCommon::Splitter

  Class defining a splitter.

Namespaces

- namespace XenCommon

  Namespace containing all the common functions of XenC.

Typedefs

- typedef struct _Options Options
- typedef struct _Options * LPOptions

Functions

- template<typename T >
  std::string XenCommon::toString (const T &Value)

  Template converting a value into a string with a precision of 20.
- template<typename T >
  std::string XenCommon::toString0 (const T &Value)

  Template converting a value into a string with no precision.
- template<typename T >
  int XenCommon::toInt (const T &Value)

  Template converting a value (generally a string) into an integer.
- template<typename T >
  double XenCommon::toDouble (const T &Value)

  Template converting a value (generally a string) into an double.
- template<typename A , typename B >
  std::pair< B, A > XenCommon::flip_pair (const std::pair< A, B > &p)

  Template flipping a pair key type with value type.

- template<typename A , typename B >
  std::multimap< B, A,
  std::greater< B > > XenCommon::flip_map (const std::map< A, B > &src)

  Template flipping a multimap with descending order keys with values.
- int XenCommon::wordCount (const std::string &str)

  Computes the word count of a string.
- std::string XenCommon::getStdoutFromCommand (std::string cmd)

  Executes a system command and returns the output.

7.13.1 Detailed Description

File containing all common classes/structures/functions of many classes of XenC.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.13.2 Typedef Documentation

7.13.2.1 typedef struct _Options * LPOptions

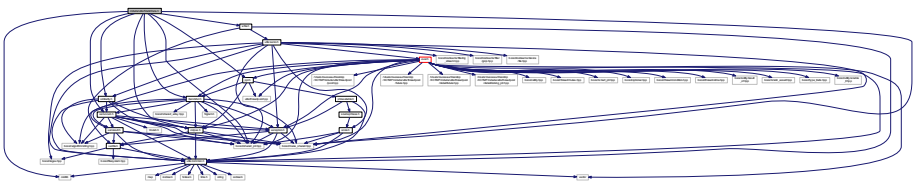
7.13.2.2 typedef struct _Options Options

7.14 include/utils/StaticData.h File Reference

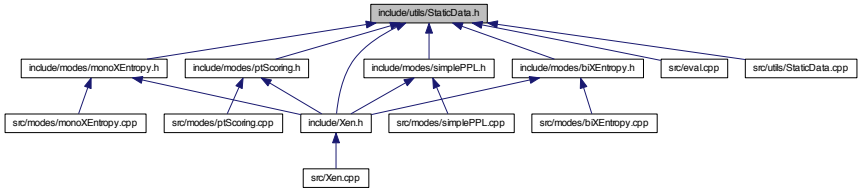
File handling all data objects used by XenC in a static way.

```
#include <cstdlib>
#include <boost/shared_ptr.hpp>
#include <boost/make_shared.hpp>
#include "corpus.h"
#include "XenLMsri.h"
#include "xenvocab.h"
#include "ppl.h"
#include "similarity.h"
#include "wfile.h"
```

Include dependency graph for StaticData.h:



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



Classes

- class CorpusPair

  Tiny class holding two related Corpus.
- class LMPair

  Tiny class holding two related language models.
- class VocabPair

  Tiny class holding the two vocabularies.
- class PPLPair

  Tiny class holding two related PPL objects.
- class PhraseTablePair

  Tiny class holding the two phrase-tables.
- class MeanLMPair

  Tiny class holding two additional LMs for mean scoring feature.
- class MeanPPLPair

  Tiny class holding two additional PPL objects for mean scoring feature.
- class ScoreHolder

  Tiny class holding three Score objects (global scores, similarity, cross-entropy)
- class StaticData

  Class gathering all data used and generated by XenC.

7.14.1 Detailed Description

File handling all data objects used by XenC in a static way.

Author

Anthony Rousseau

Version

1.1.0

Date

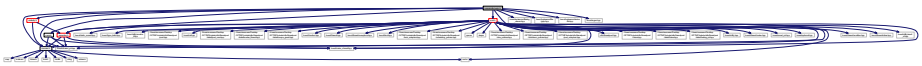
13 August 2013

7.15 include/utils/xenio.h File Reference

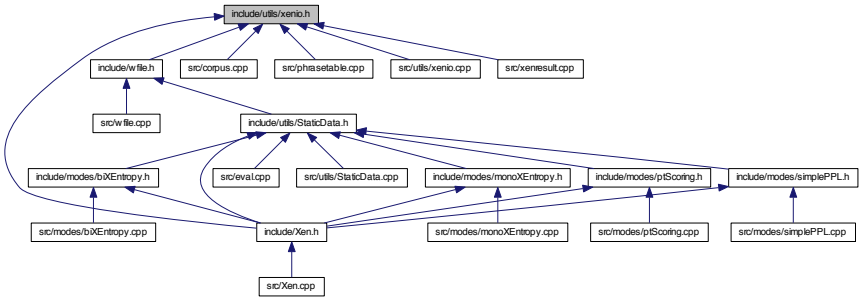
Class handling all input/output operations of XenC.

```
#include "common.h"
#include "eval.h"
#include "score.h"
#include "xenoption.h"
#include "similarity.h"
#include <boost/iostreams/filtering_stream.hpp>
#include <boost/iostreams/filter/gzip.hpp>
#include <boost/iostreams/device/file.hpp>
#include <boost/shared_ptr.hpp>
#include <boost/make_shared.hpp>
#include <boost/regex.hpp>
```

Include dependency graph for xenio.h:



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



Classes

- class XenIO

  Class handling all input/output operations of XenC.

7.15.1 Detailed Description

Class handling all input/output operations of XenC.

Author

Anthony Rousseau

Version

1.1.0

Date

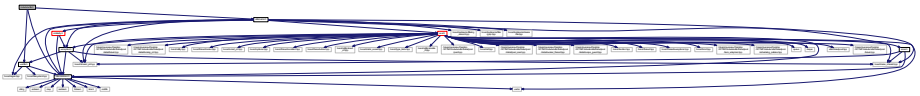
13 August 2013

7.16 include/wfile.h File Reference

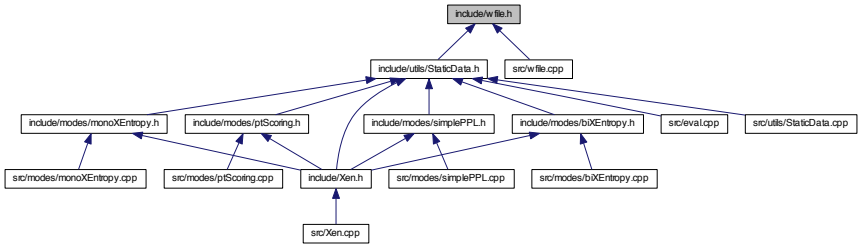
Class handling a file with values intended at weighting XenC scores.

```
#include "utils/common.h"
#include "utils/xenio.h"
#include "xenfile.h"
```

Include dependency graph for wfile.h:



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



Classes

- class Wfile

  Class handling a file with values intended at weighting XenC scores.

7.16.1 Detailed Description

Class handling a file with values intended at weighting XenC scores.

Author

Anthony Rousseau

Version

1.1.0

Date

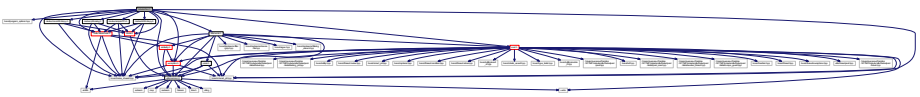
13 August 2013

7.17 include/Xen.h File Reference

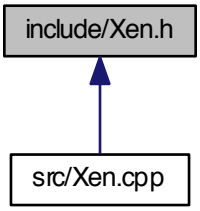
Main file of XenC, controls execution.

```
#include <boost/program_options.hpp>
#include <boost/make_shared.hpp>
#include <boost/shared_ptr.hpp>
#include "utils/common.h"
#include "utils/xenio.h"
#include "modes/simplePPL.h"
#include "modes/monoXEntropy.h"
#include "modes/biXEntropy.h"
#include "modes/ptScoring.h"
#include "eval.h"
#include "mode.h"
#include "xenoption.h"
#include "utils/StaticData.h"
```

Include dependency graph for Xen.h:



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



Functions

- int main (int argc, char ∗argv[])

  Main function of XenC.
- std::string sanityCheck (XenOption ∗opt)

  Controls the mandatory options.
- std::string getOutName (XenOption ∗opt)

  Computes the output file name.

7.17.1 Detailed Description

Main file of XenC, controls execution.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.17.2 Function Documentation

7.17.2.1 std::string getOutName (XenOption * *opt*)

Computes the output file name.

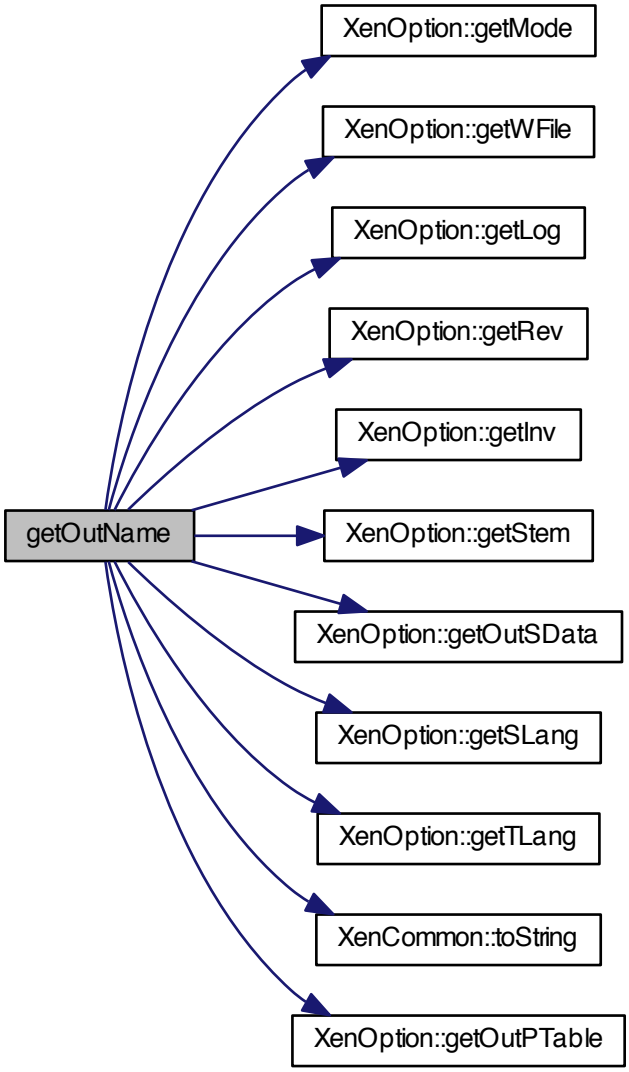
Parameters

opt	: XenOption object containing all the passed options

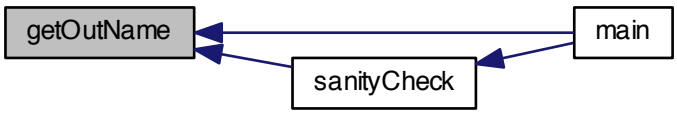
Returns

the output file name

Here is the call graph for this function:



Here is the caller graph for this function:



7.17.2.2 int main (int *argc*, char * *argv[]*)

Main function of XenC.

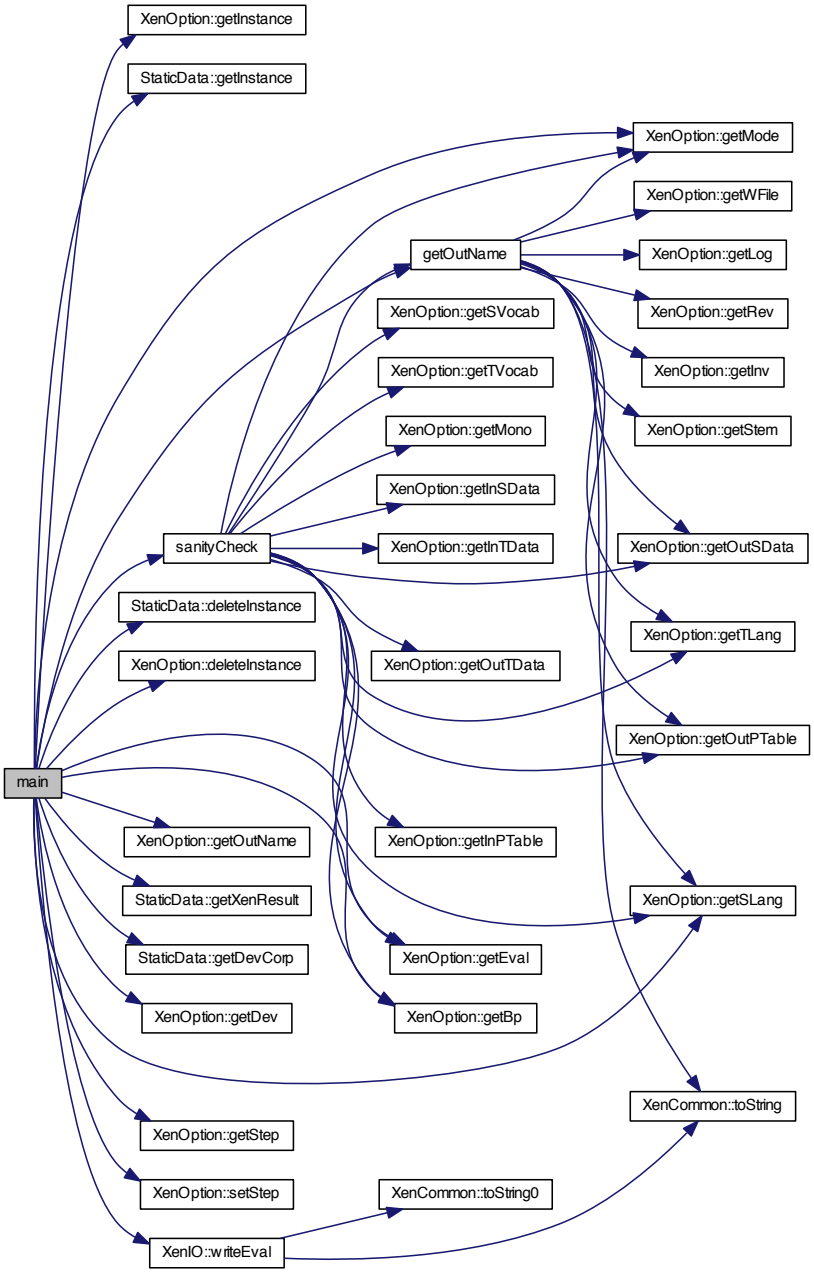
Parameters

argc	: number of arguments
argv	: passed arguments to the program

Returns

0 if execution ended well

Here is the call graph for this function:



7.17.2.3 std::string sanityCheck (XenOption * *opt*)

Controls the mandatory options.

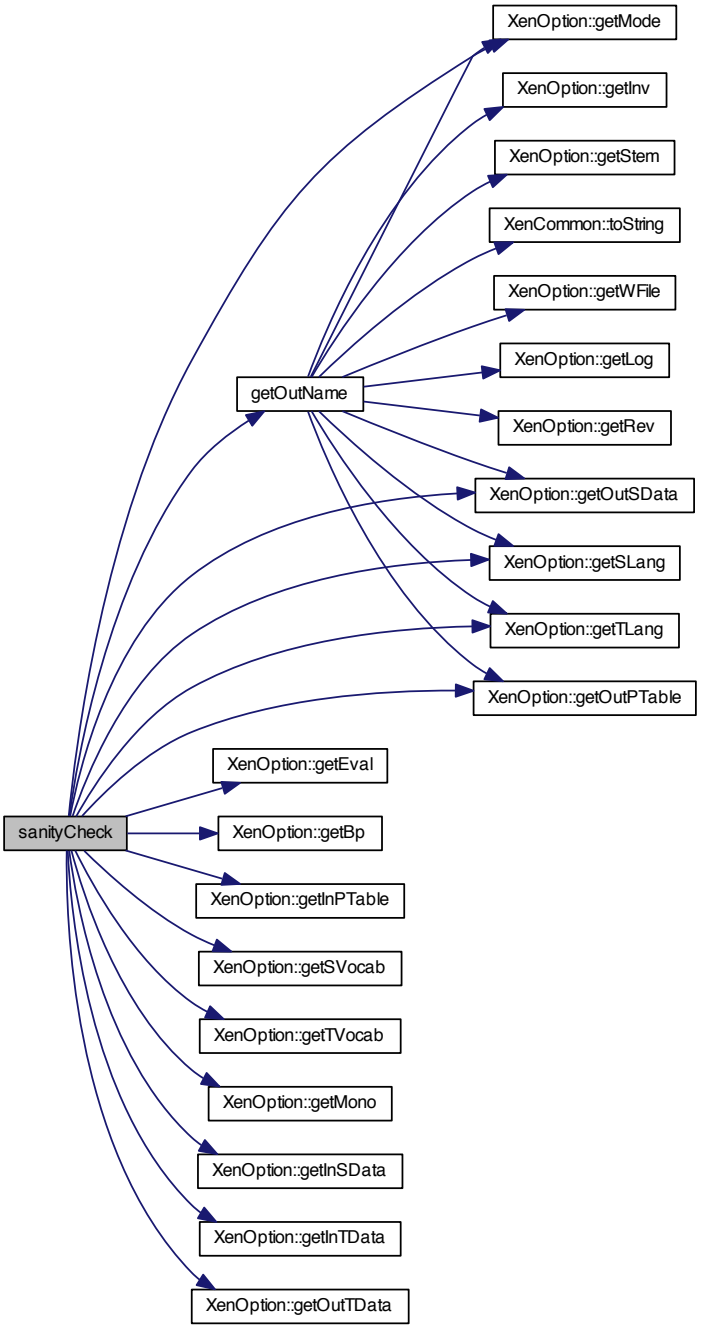
Parameters

opt	: XenOption object containing all the passed options

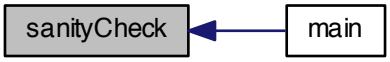
Returns

0 if all is good, an error message otherwise

Here is the call graph for this function:



Here is the caller graph for this function:

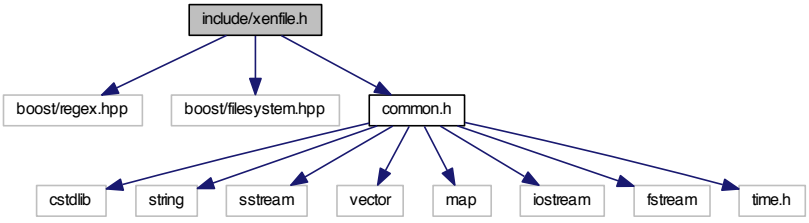


7.18 include/xenfile.h File Reference

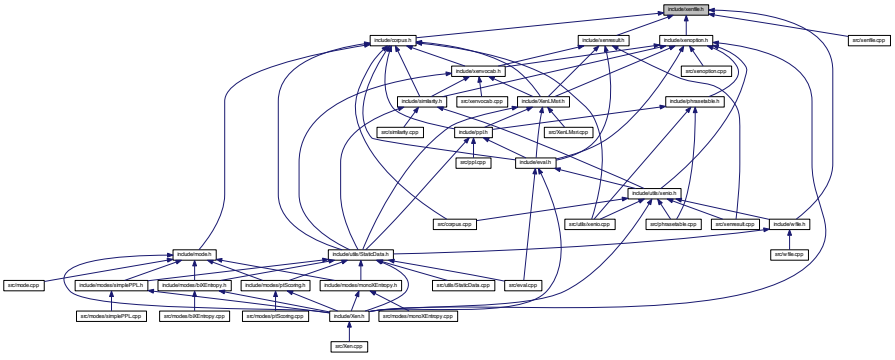
Class providing some basic functions around files.

```
#include <boost/regex.hpp>
#include <boost/filesystem.hpp>
#include "common.h"
```

Include dependency graph for xenfile.h:



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



Classes

- class XenFile

  Class providing some basic functions around files.

7.18.1 Detailed Description

Class providing some basic functions around files.

Author

Anthony Rousseau

Version

1.1.0

Date

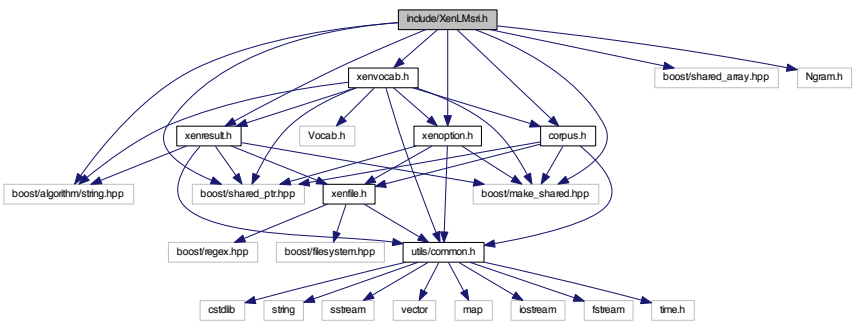
13 August 2013

7.19 include/XenLMsri.h File Reference

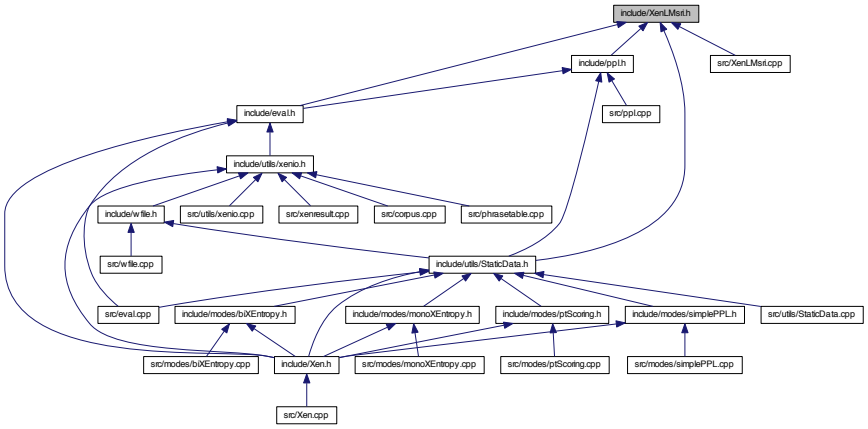
Class handling SRI LM estimation, loading, querying...

```
#include <boost/algorithm/string.hpp>
#include <boost/shared_array.hpp>
#include <boost/shared_ptr.hpp>
#include <boost/make_shared.hpp>
#include "Ngram.h"
#include "corpus.h"
#include "xenvocab.h"
#include "xenoption.h"
#include "xenresult.h"
```

Include dependency graph for XenLMsri.h:



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



Classes

- class XenLMsri

  Class handling SRI LM estimation, loading, querying...

Macros

- #define MAX_ORDER 9

  Maximum LM order.
- #define MAX_WORDS 16384

  Maximum tokens per line of text.
- #define MAX_CHARS MAX_WORDS ∗ 16

  Maximum characters per line of text.

7.19.1 Detailed Description

Class handling SRI LM estimation, loading, querying...

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.19.2 Macro Definition Documentation

7.19.2.1 #define MAX_CHARS MAX_WORDS ∗ 16

Maximum characters per line of text.

7.19.2.2 #define MAX_ORDER 9

Maximum LM order.

7.19.2.3 #define MAX_WORDS 16384

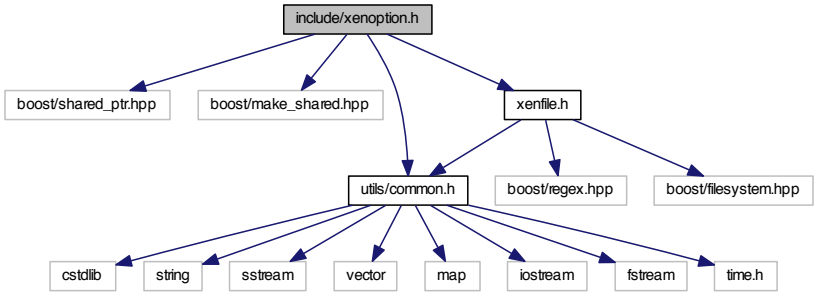
Maximum tokens per line of text.

7.20 include/xenoption.h File Reference

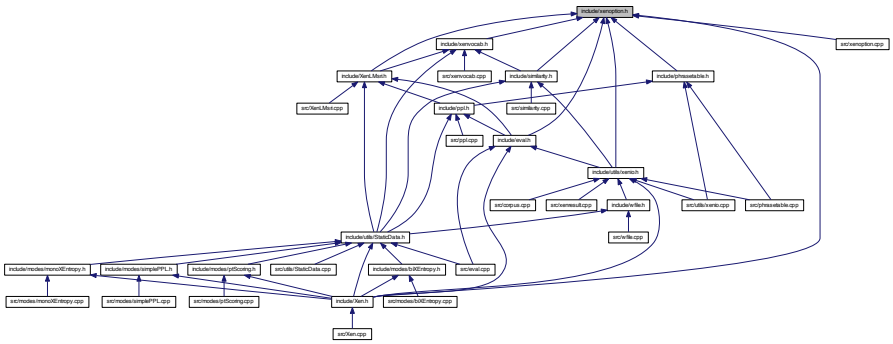
Singleton class handling XenC options accessors/mutators.

```
#include <boost/shared_ptr.hpp>
#include <boost/make_shared.hpp>
#include "utils/common.h"
#include "xenfile.h"
```

Include dependency graph for xenoption.h:



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



Classes

- class XenOption

  Singleton class handling XenC options accessors/mutators.

7.20.1 Detailed Description

Singleton class handling XenC options accessors/mutators.

Author

Anthony Rousseau

Version

1.1.0

Date

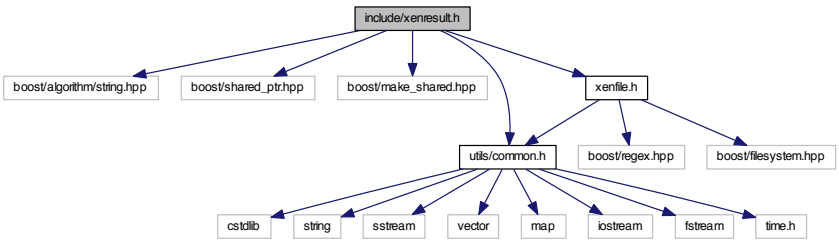
13 August 2013

7.21 include/xenresult.h File Reference

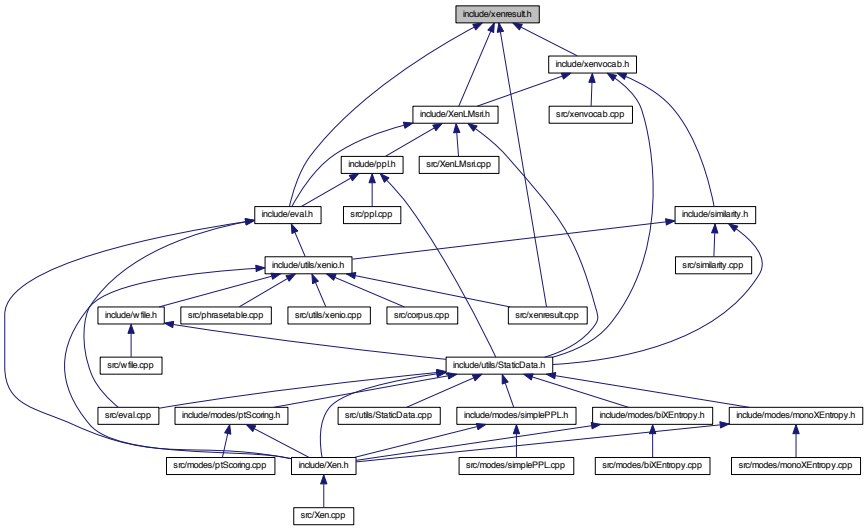
Class handling a XenC sorted result file for evaluation/best point.

```
#include <boost/algorithm/string.hpp>
#include <boost/shared_ptr.hpp>
#include <boost/make_shared.hpp>
#include "utils/common.h"
#include "xenfile.h"
```

Include dependency graph for xenresult.h:



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



Classes

- class XenResult

  Class handling a XenC sorted result file for evaluation/best point.

7.21.1 Detailed Description

Class handling a XenC sorted result file for evaluation/best point.

Author

Anthony Rousseau

Version

1.1.0

Date

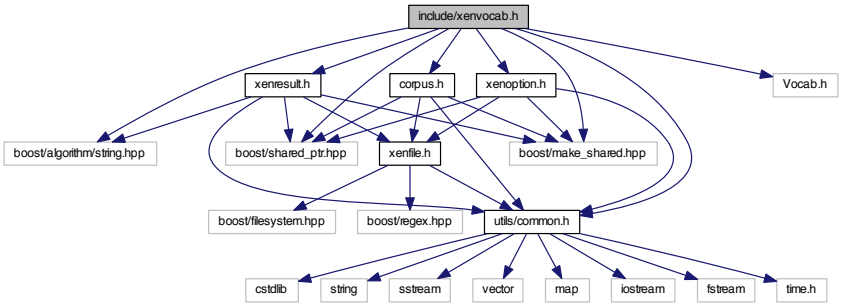
13 August 2013

7.22 include/xenvocab.h File Reference

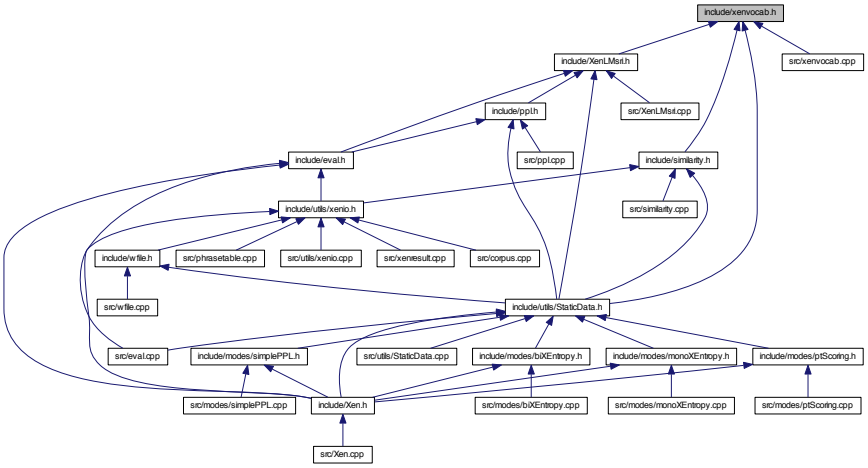
Class handling a XenC vocabulary.

```
#include <boost/algorithm/string.hpp>
#include <boost/shared_ptr.hpp>
#include <boost/make_shared.hpp>
#include "utils/common.h"
#include "corpus.h"
#include "xenresult.h"
#include "xenoption.h"
#include "Vocab.h"
```

Include dependency graph for xenvocab.h:



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



Classes

- class XenVocab

  Class handling a XenC vocabulary.

7.22.1 Detailed Description

Class handling a XenC vocabulary.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.23 src/corpus.cpp File Reference

Class handling corpus-related functionalities.

```
#include "corpus.h"
#include "utils/xenio.h"
```

Include dependency graph for corpus.cpp:

7.23.1 Detailed Description

Class handling corpus-related functionalities.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.24 src/eval.cpp File Reference

Class handling evaluation system.

```
#include "eval.h"
#include "utils/StaticData.h"
```

Include dependency graph for eval.cpp:

Functions

- void taskEval (int pc, boost::shared_ptr< XenResult > ptrXR, boost::shared_ptr< XenVocab > ptrVoc, boost::shared_ptr< Corpus > ptrDevCorp, boost::shared_ptr< EvalMap > ptrDist)

  Thread-safe evaluation function.

7.24.1 Detailed Description

Class handling evaluation system.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.24.2 Function Documentation

7.24.2.1 void taskEval (int *pc*, boost::shared_ptr< **XenResult** > *ptrXR*, boost::shared_ptr< **XenVocab** > *ptrVoc*, boost::shared_ptr< **Corpus** > *ptrDevCorp*, boost::shared_ptr< **EvalMap** > *ptrDist*)

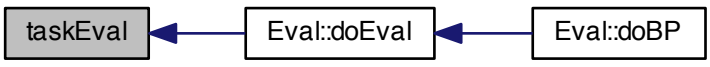
Thread-safe evaluation function.

Parameters

pc	: integer representing the percentage of the scored out-of-domain corpus to take
ptrXR	: shared pointer on the XenResult object representing the selection result file
ptrVoc	: shared pointer on the XenVocab object representing the vocabulary to use for eval
ptrDevCorp	: shared pointer on the Corpus object representing the development set
ptrDist	: shared pointer on the EvalMap type containing the evaluation scores

Here is the call graph for this function:

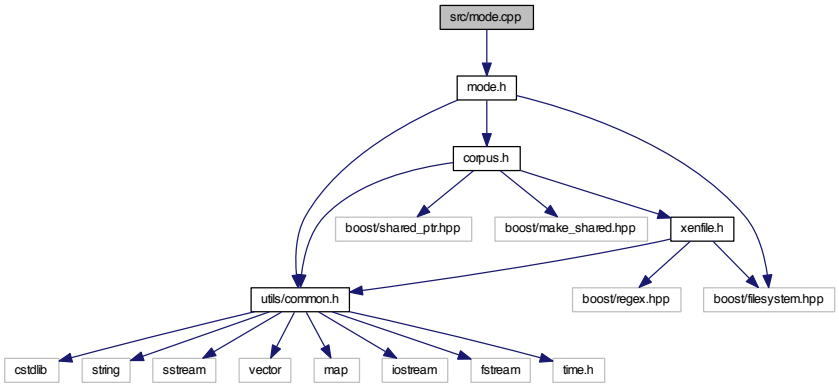
Here is the caller graph for this function:



7.25 src/mode.cpp File Reference

Abstract class defining the filtering modes architecture.

```
#include "mode.h"
```
Include dependency graph for mode.cpp:



7.25.1 Detailed Description

Abstract class defining the filtering modes architecture.

Author

Anthony Rousseau

Version

1.1.0

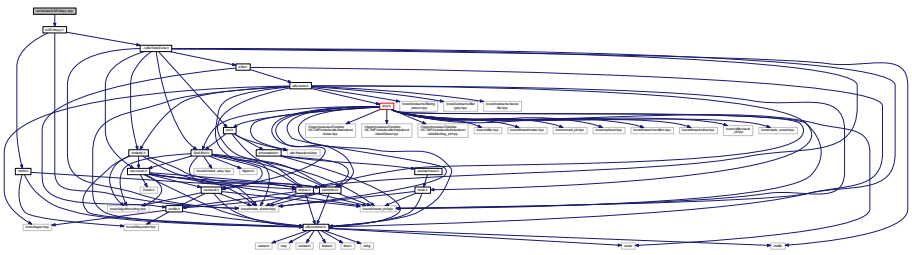
Date

13 August 2013

7.26 src/modes/biXEntropy.cpp File Reference

Derived class to handle filtering mode 3: bilingual cross-entropy.

```
#include "biXEntropy.h"
```
Include dependency graph for biXEntropy.cpp:



7.26.1 Detailed Description

Derived class to handle filtering mode 3: bilingual cross-entropy.

Author

Anthony Rousseau

Version

1.1.0

Date

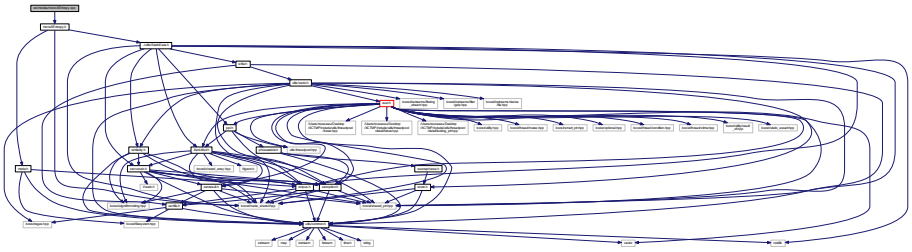
13 August 2013

7.27 src/modes/monoXEntropy.cpp File Reference

Derived class to handle filtering mode 2: monolingual cross-entropy.

```
#include "monoXEntropy.h"
```

Include dependency graph for monoXEntropy.cpp:



7.27.1 Detailed Description

Derived class to handle filtering mode 2: monolingual cross-entropy.

Author

Anthony Rousseau

Version

1.1.0

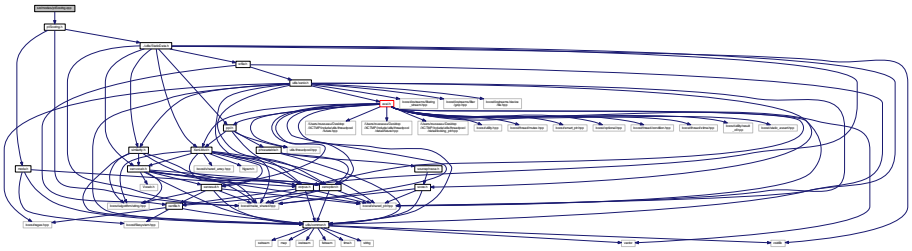
Date

13 August 2013

7.28 src/modes/ptScoring.cpp File Reference

Derived class to handle filtering mode 4: phrase-table cross-entropy.

```
#include "ptScoring.h"
```
Include dependency graph for ptScoring.cpp:



7.28.1 Detailed Description

Derived class to handle filtering mode 4: phrase-table cross-entropy.

Author

Anthony Rousseau

Version

1.1.0

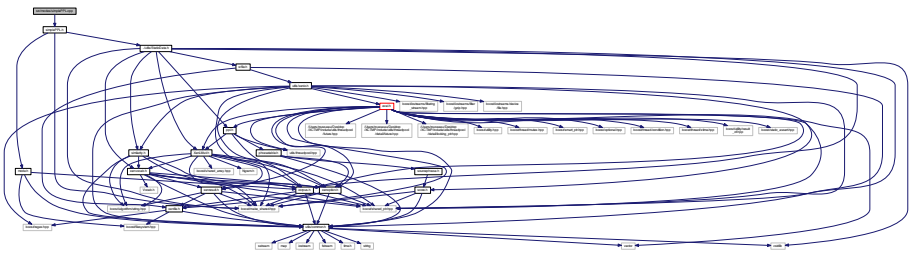
Date

13 August 2013

7.29 src/modes/simplePPL.cpp File Reference

Derived class to handle filtering mode 1: simple perplexity.

```
#include "simplePPL.h"
```
Include dependency graph for simplePPL.cpp:



7.29.1 Detailed Description

Derived class to handle filtering mode 1: simple perplexity.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.30 src/phrasetable.cpp File Reference

Class handling phrase-table related functionalities.

```
#include "phrasetable.h"
#include "utils/xenio.h"
```

Include dependency graph for phrasetable.cpp:

7.30.1 Detailed Description

Class handling phrase-table related functionalities.

Author

Anthony Rousseau

Version

1.1.0

Date

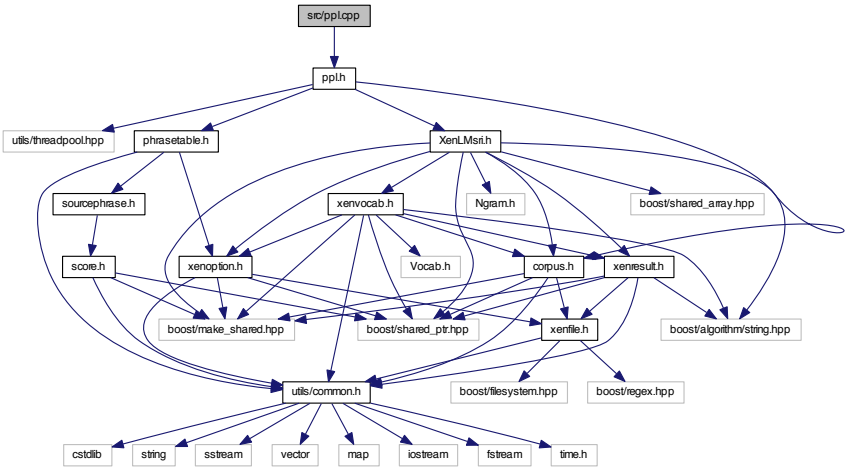
13 August 2013

7.31 src/ppl.cpp File Reference

Class handling the perplexity/cross-entropy computations.

```
#include "ppl.h"
```

Include dependency graph for ppl.cpp:



Functions

- void taskCalcPPL (int numLine, std::string line, boost::shared_ptr< std::vector< double > > ptrPPL, boost::shared_ptr< XenLMsri > ptrLM)

  Thread-safe perplexity computation function.

7.31.1 Detailed Description

Class handling the perplexity/cross-entropy computations.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.31.2 Function Documentation

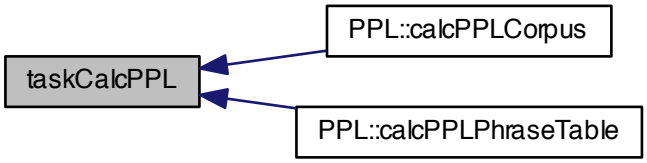
7.31.2.1 void taskCalcPPL (int *numLine*, std::string *line*, boost::shared_ptr< std::vector< double > > *ptrPPL*, boost::shared_ptr< **XenLMsri** > *ptrLM*)

Thread-safe perplexity computation function.

Parameters

numLine	: integer to the line number to compute perplexity for
line	: string to the text line to compute perplexity for
ptrPPL	: shared pointer on the vector of doubles containing the perplexity scores
ptrLM	: shared pointer on the language model to compute perplexity and cross-entropy from

Here is the caller graph for this function:

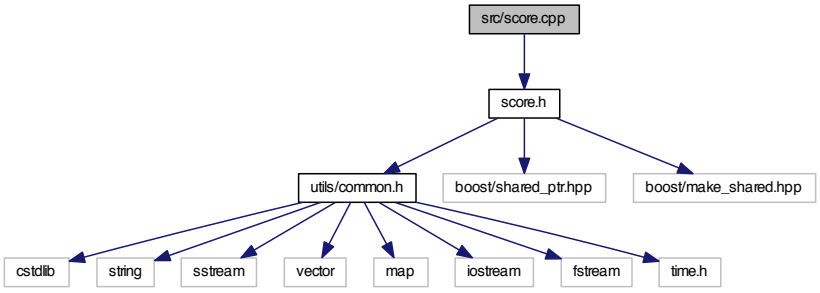


7.32 src/score.cpp File Reference

Class holding the XenC scores representation.

```
#include "score.h"
```

Include dependency graph for score.cpp:



7.32.1 Detailed Description

Class holding the XenC scores representation.

Author

Anthony Rousseau

Version

1.1.0

Date

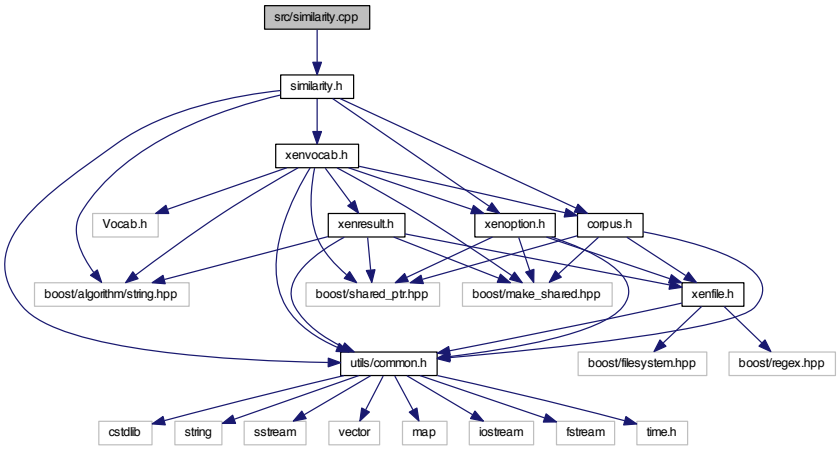
13 August 2013

7.33 src/similarity.cpp File Reference

Class taking care of all the similarity measure computations.

```
#include "similarity.h"
```

Include dependency graph for similarity.cpp:



7.33.1 Detailed Description

Class taking care of all the similarity measure computations.

Author

Anthony Rousseau

Version

1.1.0

Date

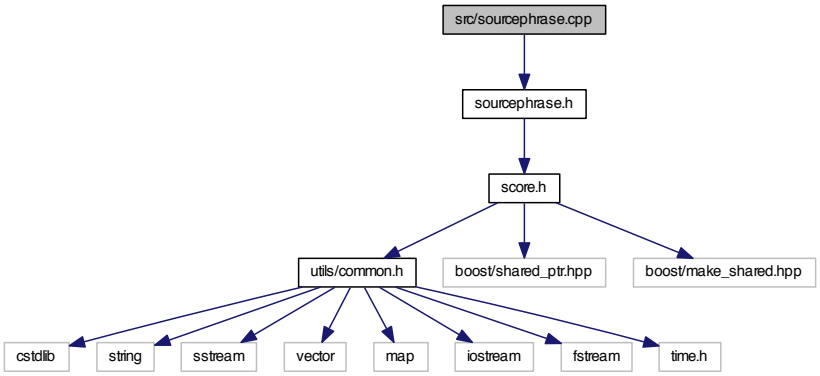
13 August 2013

7.34 src/sourcephrase.cpp File Reference

Class holding a merged source phrase and all associated data.

```
#include "sourcephrase.h"
```

Include dependency graph for sourcephrase.cpp:



7.34.1 Detailed Description

Class holding a merged source phrase and all associated data.

Author

Anthony Rousseau

Version

1.1.0

Date

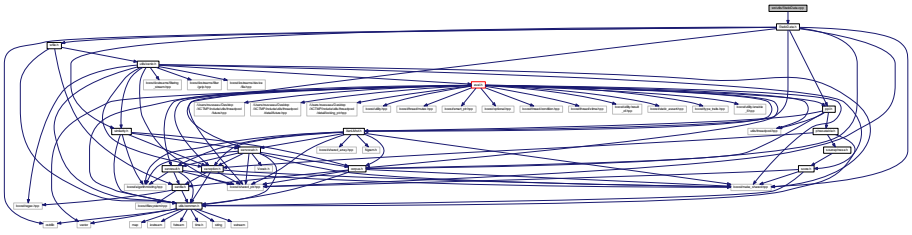
13 August 2013

7.35 src/utils/StaticData.cpp File Reference

File handling all data objects used by XenC in a static way.

```
#include "StaticData.h"
```

Include dependency graph for StaticData.cpp:



7.35.1 Detailed Description

File handling all data objects used by XenC in a static way.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.36 src/utils/xenio.cpp File Reference

Class handling all input/output operations of XenC.

```
#include "xenio.h"
#include "corpus.h"
#include "phrasetable.h"
```

Include dependency graph for xenio.cpp:

7.36.1 Detailed Description

Class handling all input/output operations of XenC.

Author

Anthony Rousseau

Version

1.1.0

Date

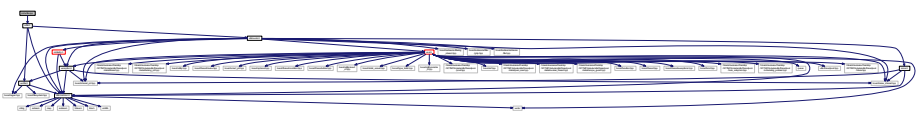
13 August 2013

7.37 src/wfile.cpp File Reference

Class handling a file with values intended at weighting XenC scores.

```
#include "wfile.h"
```

Include dependency graph for wfile.cpp:



7.37.1 Detailed Description

Class handling a file with values intended at weighting XenC scores.

Author

Anthony Rousseau

Version

1.1.0

Date

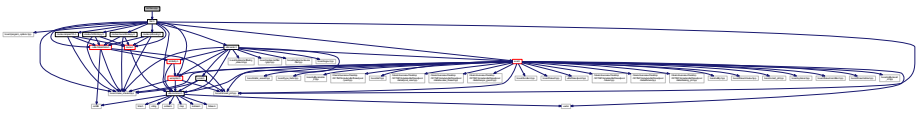
13 August 2013

7.38 src/Xen.cpp File Reference

Main file of XenC, controls execution.

```
#include "Xen.h"
```

Include dependency graph for Xen.cpp:



Functions

- int main (int argc, char ∗argv[])

  Main function of XenC.
- std::string sanityCheck (XenOption ∗opt)

  Controls the mandatory options.
- std::string getOutName (XenOption ∗opt)

  Computes the output file name.

7.38.1 Detailed Description

Main file of XenC, controls execution.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.38.2 Function Documentation

7.38.2.1 std::string getOutName (XenOption * *opt*)

Computes the output file name.

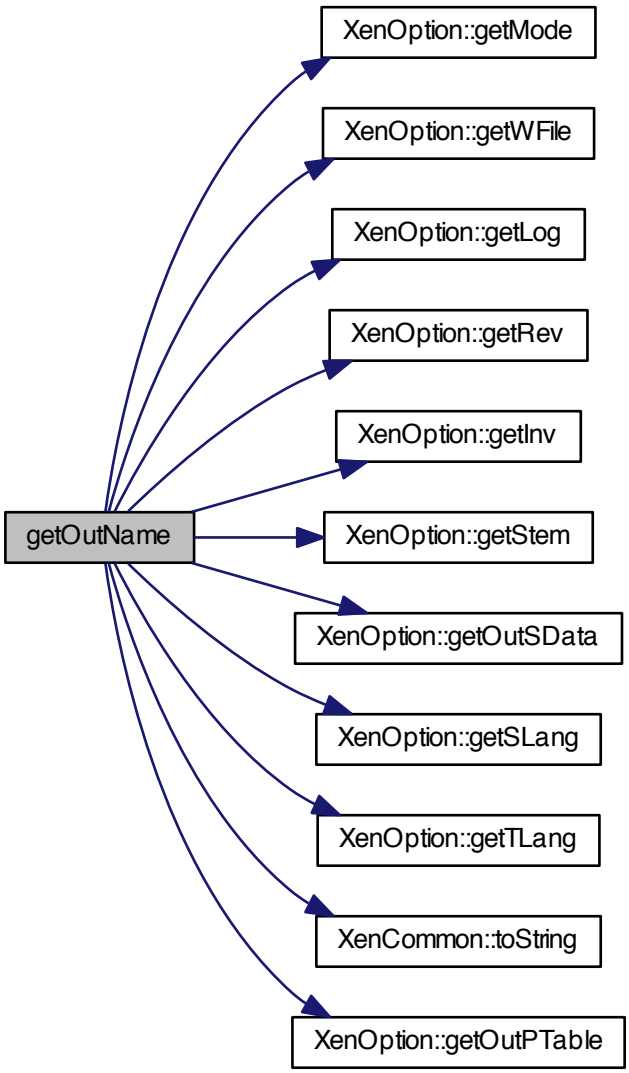
Parameters

opt	: XenOption object containing all the passed options

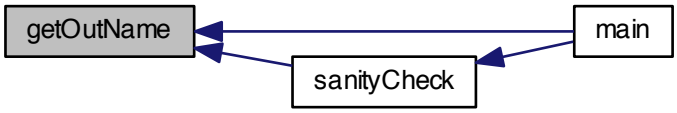
Returns

the output file name

Here is the call graph for this function:



Here is the caller graph for this function:



7.38.2.2 int main (int *argc*, char * *argv[]*)

Main function of XenC.

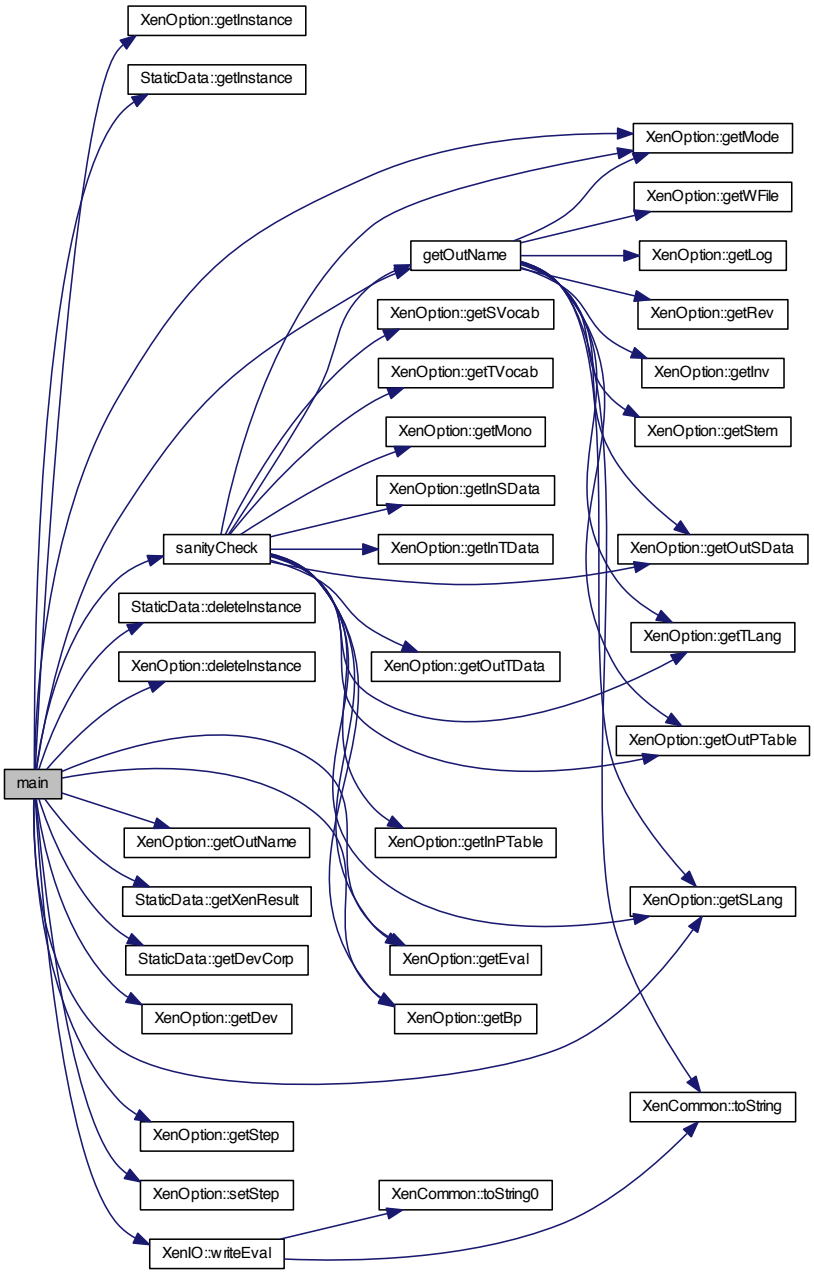
Parameters

argc	: number of arguments
argv	: passed arguments to the program

Returns

0 if execution ended well

Here is the call graph for this function:



7.38.2.3 std::string sanityCheck (XenOption * *opt*)

Controls the mandatory options.

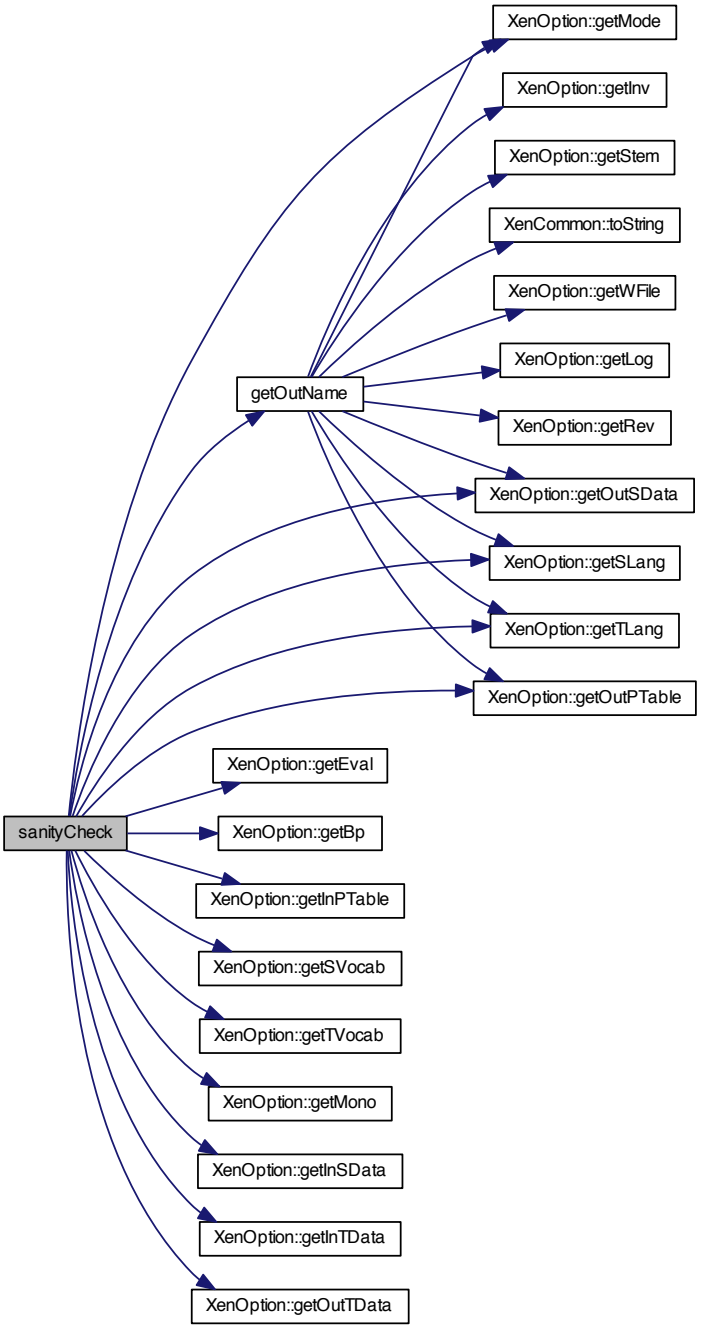
Parameters

opt	: XenOption object containing all the passed options

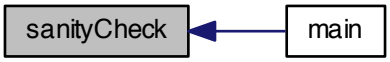
Returns

0 if all is good, an error message otherwise

Here is the call graph for this function:



Here is the caller graph for this function:

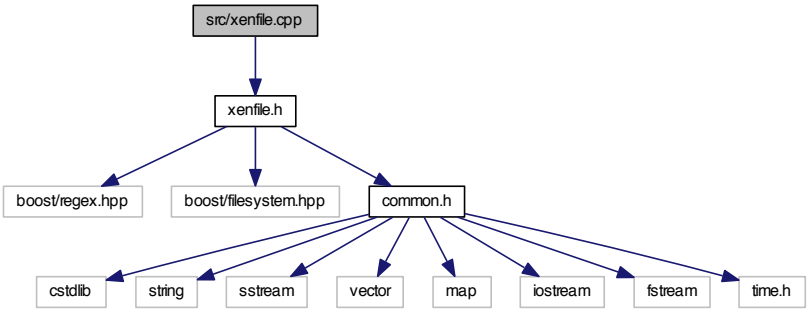


7.39 src/xenfile.cpp File Reference

Class providing some basic functions around files.

```
#include "xenfile.h"
```

Include dependency graph for xenfile.cpp:



7.39.1 Detailed Description

Class providing some basic functions around files.

Author

Anthony Rousseau

Version

1.1.0

Date

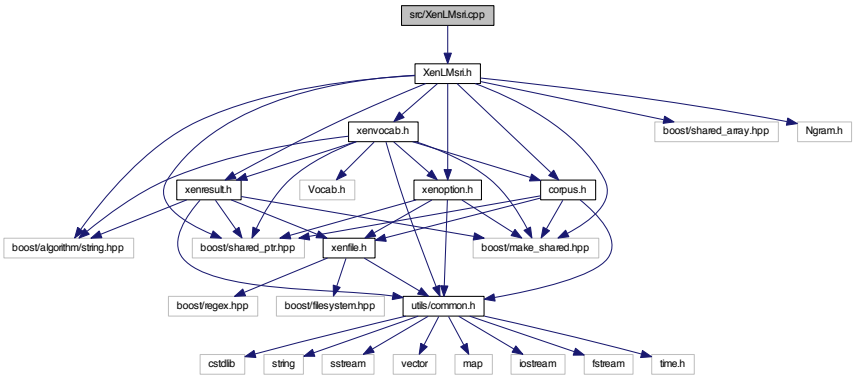
13 August 2013

7.40 src/XenLMsri.cpp File Reference

Class handling SRI LM estimation, loading, querying...

```
#include "XenLMsri.h"
```

Include dependency graph for XenLMsri.cpp:



Macros

- #define USE_STATS(what) (ptrNStats->what)
- #define USE_STATS(what) (ptrNStats->what)

7.40.1 Detailed Description

Class handling SRI LM estimation, loading, querying...

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.40.2 Macro Definition Documentation

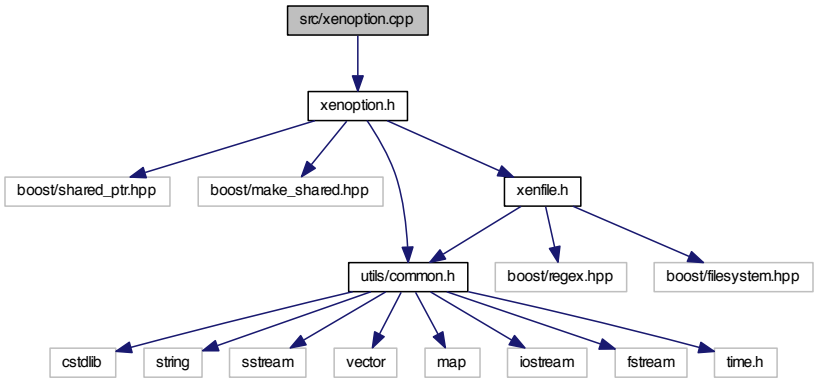
7.40.2.1 #define USE_STATS(*what*) (ptrNStats->what)

7.40.2.2 #define USE_STATS(*what*) (ptrNStats->what)

7.41 src/xenoption.cpp File Reference

Singleton class handling XenC options accessors/mutators.

```
#include "xenoption.h"
```
Include dependency graph for xenoption.cpp:



7.41.1 Detailed Description

Singleton class handling XenC options accessors/mutators.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013

7.42 src/xenresult.cpp File Reference

Class handling a XenC sorted result file for evaluation/best point.

```
#include "xenresult.h"
#include "utils/xenio.h"
```
Include dependency graph for xenresult.cpp:

7.42.1 Detailed Description

Class handling a XenC sorted result file for evaluation/best point.

Author

Anthony Rousseau

Version

1.1.0

Date

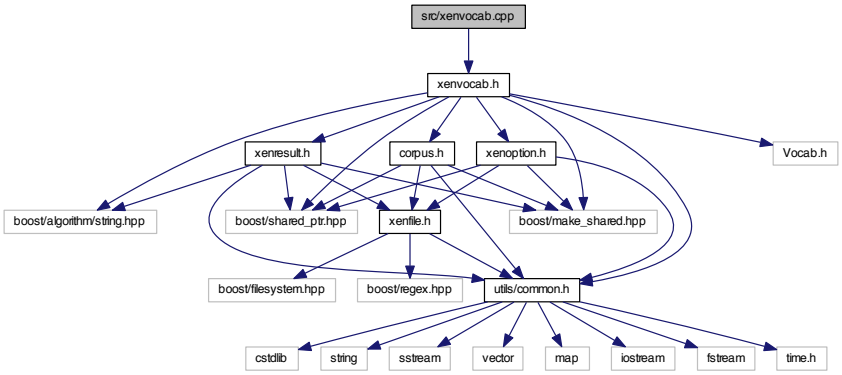
13 August 2013

7.43 src/xenvocab.cpp File Reference

Class handling a XenC vocabulary.

```
#include "xenvocab.h"
```

Include dependency graph for xenvocab.cpp:



7.43.1 Detailed Description

Class handling a XenC vocabulary.

Author

Anthony Rousseau

Version

1.1.0

Date

13 August 2013