Prosta Księgowość Domowa

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

Chapter 2

Class Index

2.1 Class List

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

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

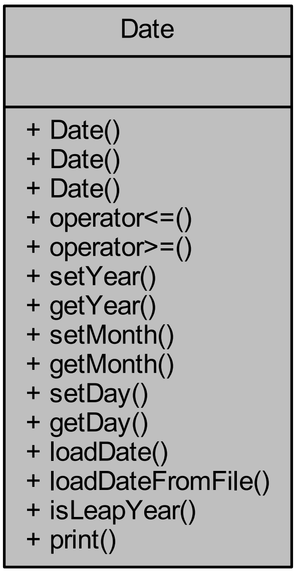
Chapter 4

Class Documentation

4.1 Date Class Reference

```
#include <Date.h>
```

Collaboration diagram for Date:



Public Member Functions

- Date ()
- Date (std::ifstream &)
- Date (int day, int month, int year)

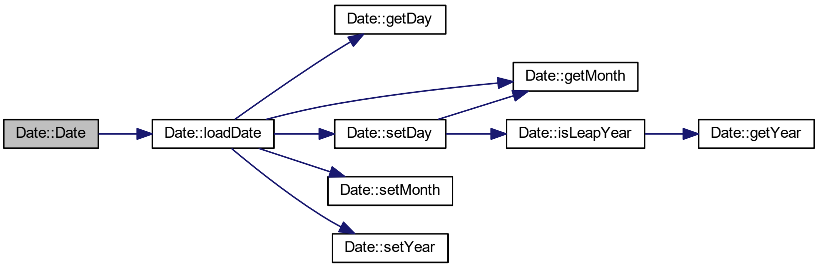
- bool operator<= (Date)
- bool operator>= (Date)
- void setYear (int year)
- int getYear ()
- void setMonth (int month)
- int getMonth ()
- void setDay (int day)
- int getDay ()
- Date loadDate ()
- Date loadDateFromFile (std::ifstream &)
- bool isLeapYear ()
- void print ()

4.1.1 Constructor & Destructor Documentation

4.1.1.1 Date() [1/3]

```
Date::Date ( )
```

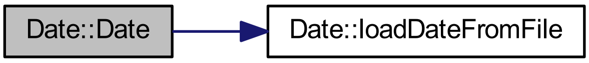
Here is the call graph for this function:



4.1.1.2 Date() [2/3]

```
Date::Date (
            std::ifstream & file )
```

Here is the call graph for this function:



4.1.1.3 Date() [3/3]

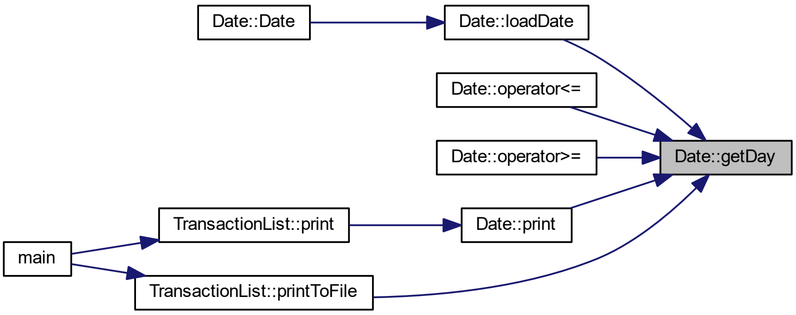
```
Date::Date (
            int day,
            int month,
            int year )  [inline]
```

4.1.2 Member Function Documentation

4.1.2.1 getDay()

```
int Date::getDay ( )
```

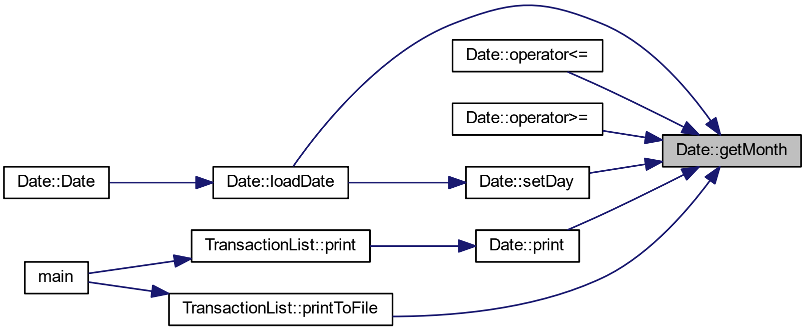
Here is the caller graph for this function:



4.1.2.2 getMonth()

```
int Date::getMonth ( )
```

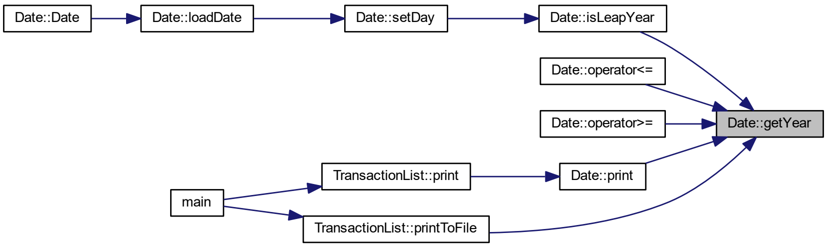
Here is the caller graph for this function:



4.1.2.3 getYear()

```
int Date::getYear ( )
```

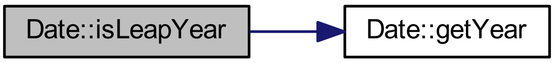
Here is the caller graph for this function:



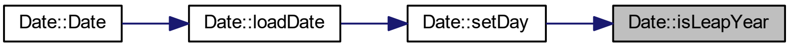
4.1.2.4 isLeapYear()

```
bool Date::isLeapYear ( )
```

Here is the call graph for this function:



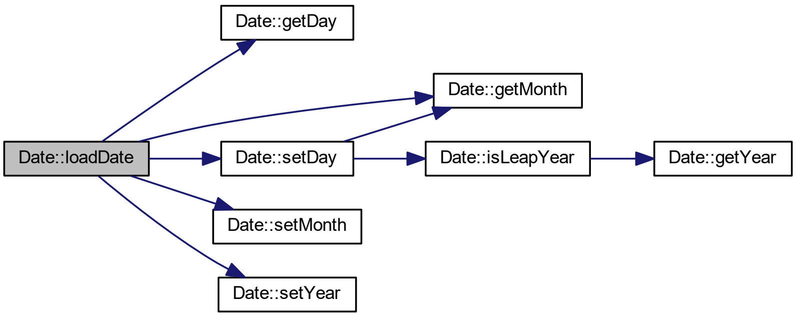
Here is the caller graph for this function:



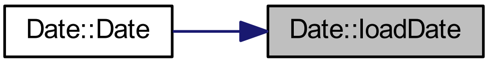
4.1.2.5 loadDate()

```
Date Date::loadDate ( )
```

Here is the call graph for this function:



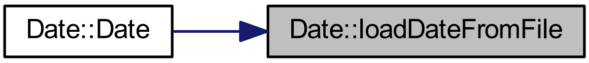
Here is the caller graph for this function:



4.1.2.6 loadDateFromFile()

```
Date Date::loadDateFromFile (
             std::ifstream & file )
```

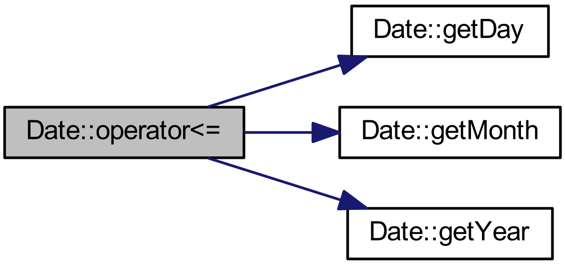
Here is the caller graph for this function:



4.1.2.7 operator<=()

```
bool Date::operator<= (
            Date date )
```

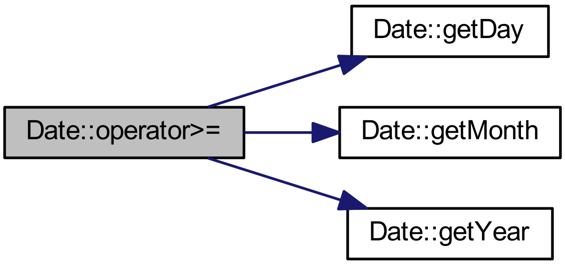
Here is the call graph for this function:



4.1.2.8 operator>=()

```
bool Date::operator>= (
            Date date )
```

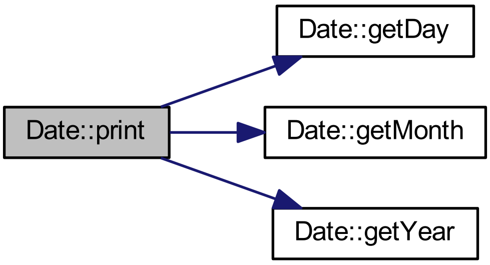
Here is the call graph for this function:



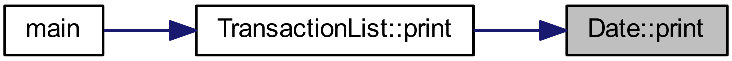
4.1.2.9 print()

```
void Date::print ( )
```

Here is the call graph for this function:



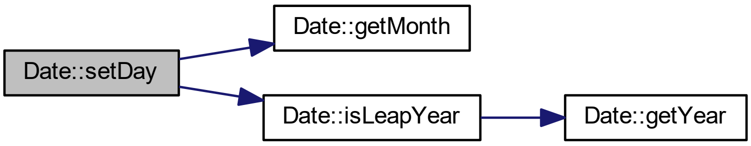
Here is the caller graph for this function:



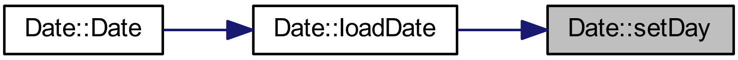
4.1.2.10 setDay()

```
void Date::setDay (
             int day )
```

Here is the call graph for this function:



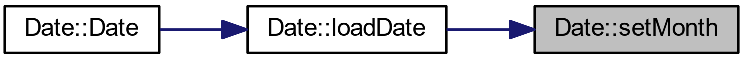
Here is the caller graph for this function:



4.1.2.11 setMonth()

```
void Date::setMonth (
             int month )
```

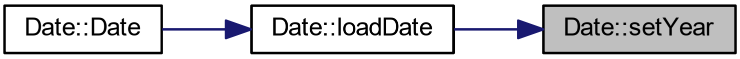
Here is the caller graph for this function:



4.1.2.12 setYear()

```
void Date::setYear (
             int year )
```

Here is the caller graph for this function:



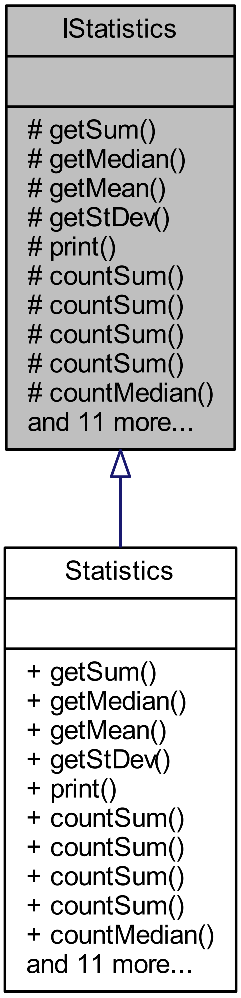
The documentation for this class was generated from the following files:

- Date.h
- Date.cpp

4.2 IStatistics Class Reference

```
#include <IStatistics.h>
```

Inheritance diagram for IStatistics:



Collaboration diagram for IStatistics:

IStatistics
# getSum()
# getMedian()
# getMean()
# getStDev()
# print()
# countSum()
# countSum()
# countSum()
# countSum()
# countMedian()
and 11 more...

Protected Member Functions

- virtual double getSum ()=0
- virtual double getMedian ()=0
- virtual double getMean ()=0
- virtual double getStDev ()=0
- virtual void print ()=0
- virtual void countSum (TransactionNode ∗)=0
- virtual void countSum (TransactionNode ∗, Member member)=0
- virtual void countSum (TransactionNode ∗, Member member, Date start, Date end)=0
- virtual void countSum (TransactionNode ∗, Date start, Date end)=0
- virtual void countMedian (TransactionNode ∗)=0
- virtual void countMedian (TransactionNode ∗, Member member)=0
- virtual void countMedian (TransactionNode ∗, Member member, Date start, Date end)=0
- virtual void countMedian (TransactionNode ∗, Date start, Date end)=0
- virtual void countMean (TransactionNode ∗)=0
- virtual void countMean (TransactionNode ∗, Member member)=0
- virtual void countMean (TransactionNode ∗, Member member, Date start, Date end)=0
- virtual void countMean (TransactionNode ∗, Date start, Date end)=0
- virtual void countStandardDeviation (TransactionNode ∗)=0
- virtual void countStandardDeviation (TransactionNode ∗, Member member)=0
- virtual void countStandardDeviation (TransactionNode ∗, Member member, Date start, Date end)=0
- virtual void countStandardDeviation (TransactionNode ∗, Date start, Date end)=0

4.2.1 Member Function Documentation

4.2.1.1 countMean() [1/4]

```
virtual void IStatistics::countMean (
            TransactionNode * )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.2 countMean() [2/4]

```
virtual void IStatistics::countMean (
            TransactionNode * ,
            Date start,
            Date end )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.3 countMean() [3/4]

```
virtual void IStatistics::countMean (
            TransactionNode * ,
            Member member )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.4 countMean() [4/4]

```
virtual void IStatistics::countMean (
            TransactionNode * ,
            Member member,
            Date start,
            Date end )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.5 countMedian() [1/4]

```
virtual void IStatistics::countMedian (
            TransactionNode * )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.6 countMedian() [2/4]

```
virtual void IStatistics::countMedian (
            TransactionNode * ,
            Date start,
            Date end )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.7 countMedian() [3/4]

```
virtual void IStatistics::countMedian (
            TransactionNode * ,
            Member member )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.8 countMedian() [4/4]

```
virtual void IStatistics::countMedian (
            TransactionNode * ,
            Member member,
            Date start,
            Date end )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.9 countStandardDeviation() [1/4]

```
virtual void IStatistics::countStandardDeviation (
            TransactionNode *  )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.10 countStandardDeviation() [2/4]

```
virtual void IStatistics::countStandardDeviation (
            TransactionNode * ,
            Date start,
            Date end )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.11 countStandardDeviation() [3/4]

```
virtual void IStatistics::countStandardDeviation (
            TransactionNode * ,
            Member member )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.12 countStandardDeviation() [4/4]

```
virtual void IStatistics::countStandardDeviation (
            TransactionNode * ,
            Member member,
            Date start,
            Date end )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.13 countSum() [1/4]

```
virtual void IStatistics::countSum (
            TransactionNode *  )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.14 countSum() [2/4]

```
virtual void IStatistics::countSum (
            TransactionNode * ,
            Date start,
            Date end )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.15 countSum() [3/4]

```
virtual void IStatistics::countSum (
            TransactionNode * ,
            Member member )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.16 countSum() [4/4]

```
virtual void IStatistics::countSum (
             TransactionNode * ,
             Member member,
             Date start,
             Date end )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.17 getMean()

```
virtual double IStatistics::getMean ( )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.18 getMedian()

```
virtual double IStatistics::getMedian ( )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.19 getStDev()

```
virtual double IStatistics::getStDev ( )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.20 getSum()

```
virtual double IStatistics::getSum ( )  [protected], [pure virtual]
```

Implemented in Statistics.

4.2.1.21 print()

```
virtual void IStatistics::print ( )  [protected], [pure virtual]
```

Implemented in Statistics.

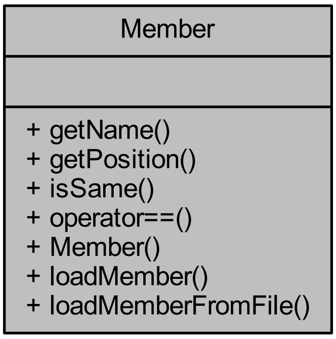
The documentation for this class was generated from the following file:

- IStatistics.h

4.3 Member Class Reference

```
#include <Member.h>
```

Collaboration diagram for Member:



Public Member Functions

- std::string getName ()
- std::string getPosition ()
- bool isSame (Member member)
- bool operator== (Member member)
- Member (std::string name, std::string position)

Static Public Member Functions

- static Member loadMember ()
- static Member loadMemberFromFile (std::ifstream &file)

4.3.1 Constructor & Destructor Documentation

4.3.1.1 Member()

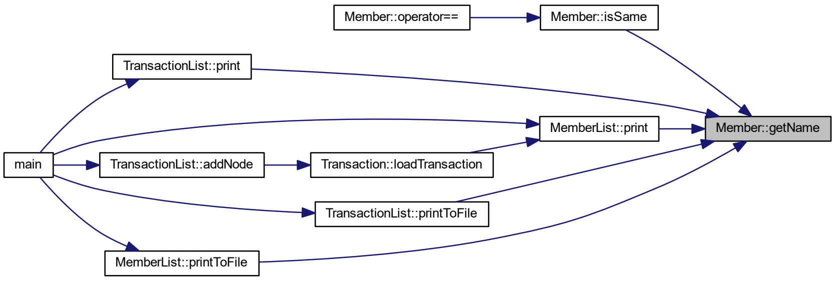
```
Member::Member (
                std::string name,
                std::string position )   [inline]
```

4.3.2 Member Function Documentation

4.3.2.1 getName()

```
std::string Member::getName ( )
```

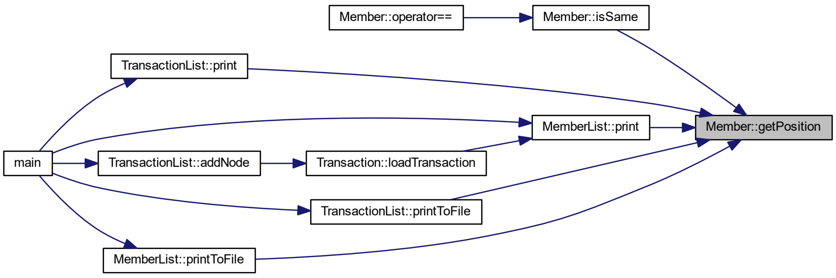
Here is the caller graph for this function:



4.3.2.2 getPosition()

```
std::string Member::getPosition ( )
```

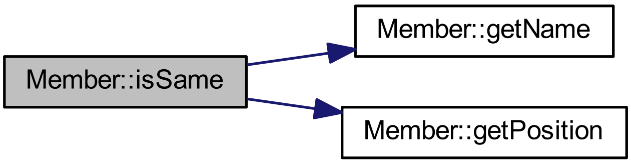
Here is the caller graph for this function:



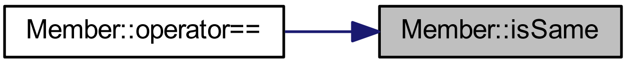
4.3.2.3 isSame()

```
bool Member::isSame (
            Member member )
```

Here is the call graph for this function:



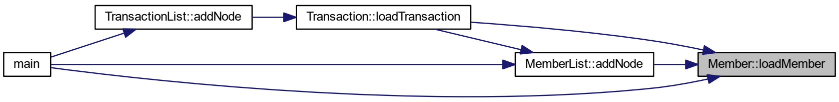
Here is the caller graph for this function:



4.3.2.4 loadMember()

```
Member Member::loadMember ( )  [static]
```

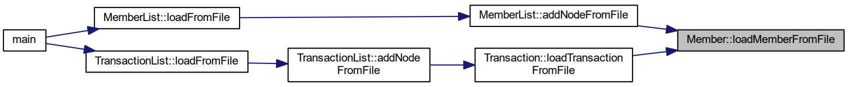
Here is the caller graph for this function:



4.3.2.5 loadMemberFromFile()

```
Member Member::loadMemberFromFile (
            std::ifstream & file )  [static]
```

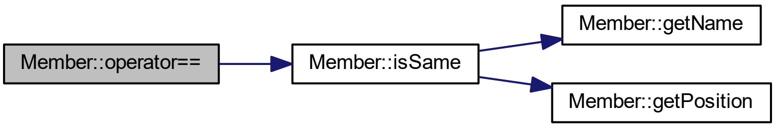
Here is the caller graph for this function:


main
MemberList::loadFromFile
TransactionList::loadFromFile
TransactionList::addNode FromFile
MemberList::addNodeFromFile
Transaction::loadTransaction FromFile
Member::loadMemberFromFile

4.3.2.6 operator==()

```
bool Member::operator== (
            Member member )
```

Here is the call graph for this function:



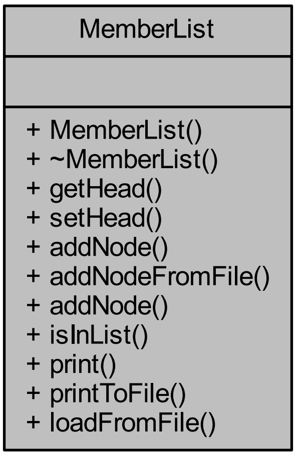
The documentation for this class was generated from the following files:

- Member.h
- Member.cpp

4.4 MemberList Class Reference

```
#include <MemberList.h>
```

Collaboration diagram for MemberList:



Public Member Functions

- MemberList ()
- ∼MemberList ()
- MemberNode ∗ getHead ()
- void setHead (MemberNode ∗)
- void addNode ()
- void addNodeFromFile (std::ifstream &)
- void addNode (Member, MemberList &)
- bool isInList (Member)
- void print ()
- void printToFile ()
- void loadFromFile ()

4.4.1 Constructor & Destructor Documentation

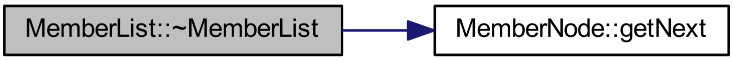
4.4.1.1 MemberList()

```
MemberList::MemberList ( )
```

4.4.1.2 ∼MemberList()

```
MemberList::∼MemberList ( )
```

Here is the call graph for this function:

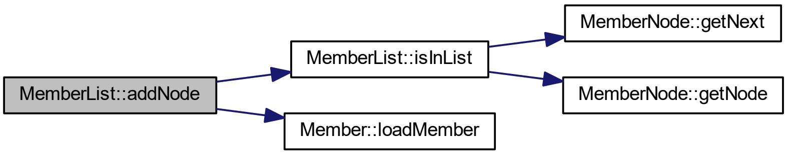


4.4.2 Member Function Documentation

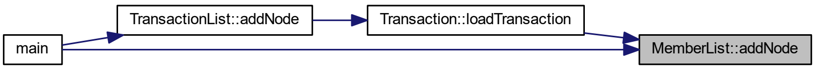
4.4.2.1 addNode() [1/2]

```
void MemberList::addNode ( )
```

Here is the call graph for this function:



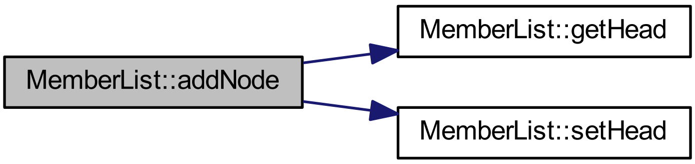
Here is the caller graph for this function:



4.4.2.2 addNode() [2/2]

```
void MemberList::addNode (
            Member member,
            MemberList & list )
```

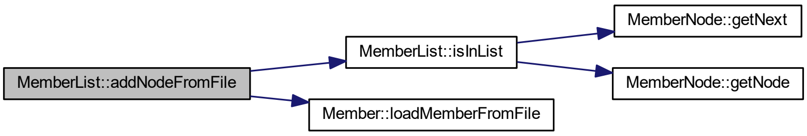
Here is the call graph for this function:



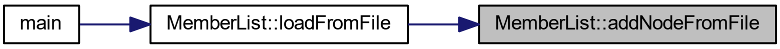
4.4.2.3 addNodeFromFile()

```
void MemberList::addNodeFromFile (
            std::ifstream & file )
```

Here is the call graph for this function:



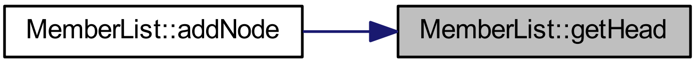
Here is the caller graph for this function:



4.4.2.4 getHead()

```
MemberNode * MemberList::getHead ( )
```

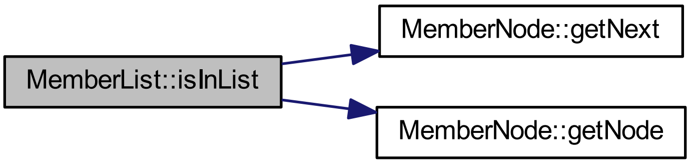
Here is the caller graph for this function:



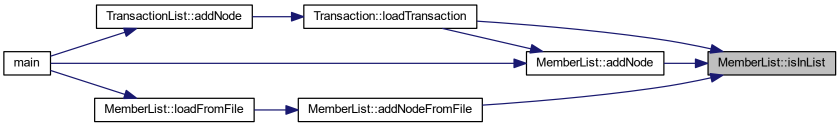
4.4.2.5 isInList()

```
bool MemberList::isInList (
            Member member )
```

Here is the call graph for this function:



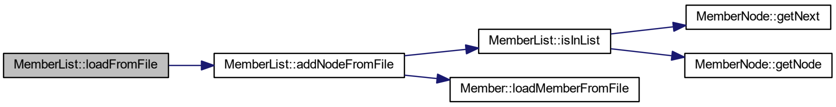
Here is the caller graph for this function:



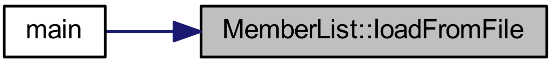
4.4.2.6 loadFromFile()

```
void MemberList::loadFromFile ( )
```

Here is the call graph for this function:



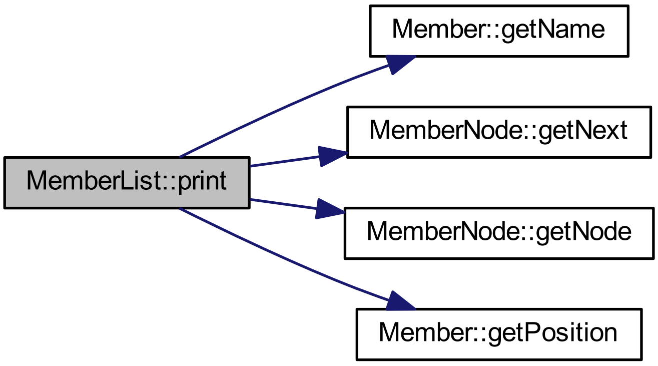
Here is the caller graph for this function:



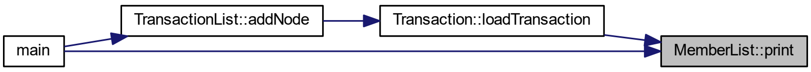
4.4.2.7 print()

```
void MemberList::print ( )
```

Here is the call graph for this function:



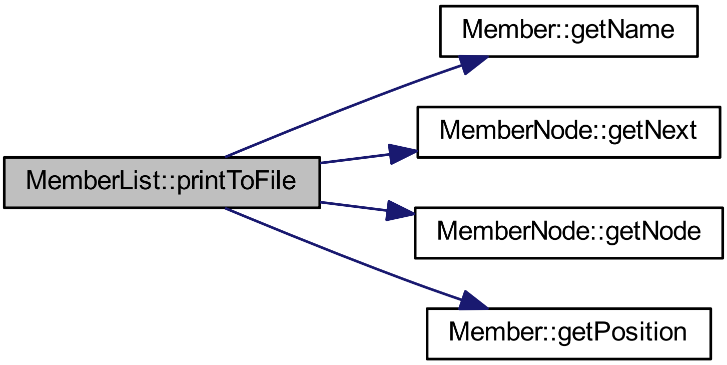
Here is the caller graph for this function:



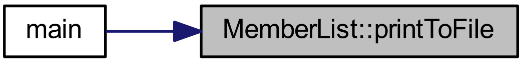
4.4.2.8 printToFile()

```
void MemberList::printToFile ( )
```

Here is the call graph for this function:



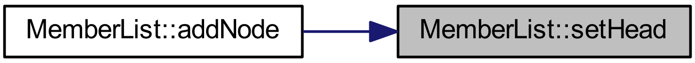
Here is the caller graph for this function:



4.4.2.9 setHead()

```
void MemberList::setHead (
            MemberNode * Node )
```

Here is the caller graph for this function:



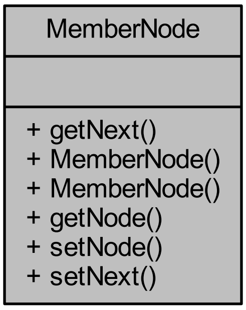
The documentation for this class was generated from the following files:

- MemberList.h
- MemberList.cpp

4.5 MemberNode Class Reference

```
#include <MemberNode.h>
```

Collaboration diagram for MemberNode:



Public Member Functions

- MemberNode * getNext ()
- MemberNode (Member Node)
- MemberNode (Member Node, MemberNode *pNext)
- Member getNode ()
- void setNode (Member)
- void setNext (MemberNode *)

4.5.1 Constructor & Destructor Documentation

4.5.1.1 MemberNode() [1/2]

```
MemberNode::MemberNode (
            Member Node )  [inline]
```

4.5.1.2 MemberNode() [2/2]

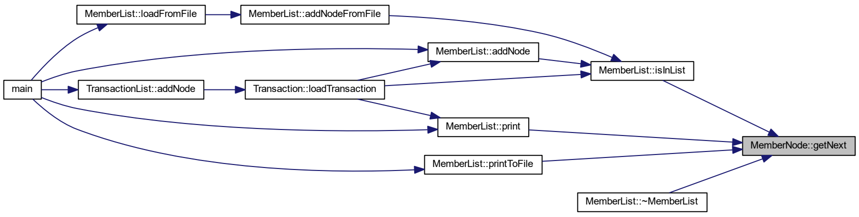
```
MemberNode::MemberNode (
            Member Node,
            MemberNode * pNext )  [inline]
```

4.5.2 Member Function Documentation

4.5.2.1 getNext()

```
MemberNode * MemberNode::getNext ( )
```

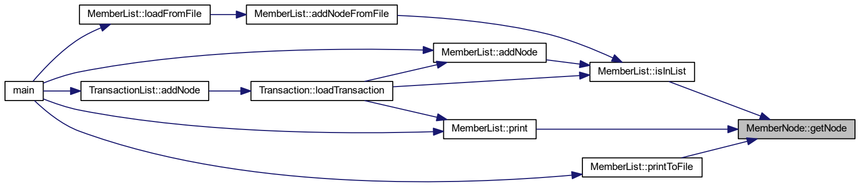
Here is the caller graph for this function:



4.5.2.2 getNode()

```
Member MemberNode::getNode ( )
```

Here is the caller graph for this function:



4.5.2.3 setNext()

```
void MemberNode::setNext (
             MemberNode * pNext )
```

4.5.2.4 setNode()

```
void MemberNode::setNode (
             Member member )
```

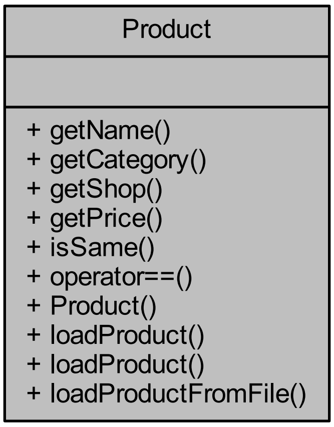
The documentation for this class was generated from the following files:

- MemberNode.h
- MemberNode.cpp

4.6 Product Class Reference

```
#include <Product.h>
```

Collaboration diagram for Product:



Public Member Functions

- std::string getName ()
- std::string getCategory ()
- std::string getShop ()
- double getPrice ()
- bool isSame (Product)
- bool operator== (Product)
- Product (std::string name, std::string category, std::string shop, double price)

Static Public Member Functions

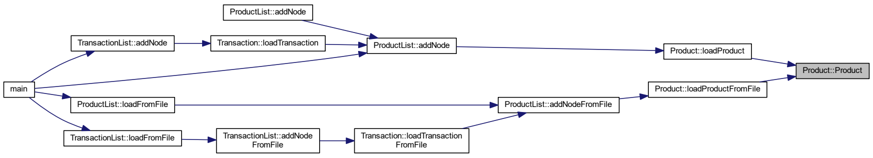
- static Product loadProduct ()
- static Product loadProduct (std::string shop)
- static Product loadProductFromFile (std::ifstream &file)

4.6.1 Constructor & Destructor Documentation

4.6.1.1 Product()

```
Product::Product (
            std::string name,
            std::string category,
            std::string shop,
            double price )  [inline]
```

Here is the caller graph for this function:

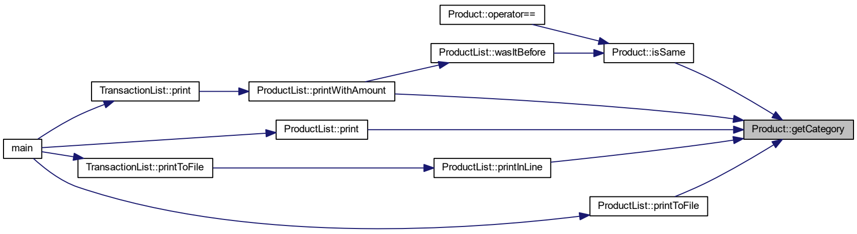

ProductList::addNode
TransactionList::addNode
Transaction::loadTransaction
ProductList::addNode
Product::loadProduct
Product::Product
main
Product::loadProductFromFile
ProductList::loadFromFile
ProductList::addNodeFromFile
TransactionList::loadFromFile
TransactionList::addNode FromFile
Transaction::loadTransaction FromFile

4.6.2 Member Function Documentation

4.6.2.1 getCategory()

```
std::string Product::getCategory ( )
```

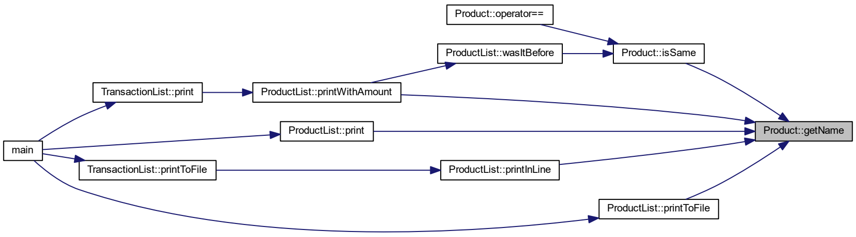
Here is the caller graph for this function:



4.6.2.2 getName()

```
std::string Product::getName ( )
```

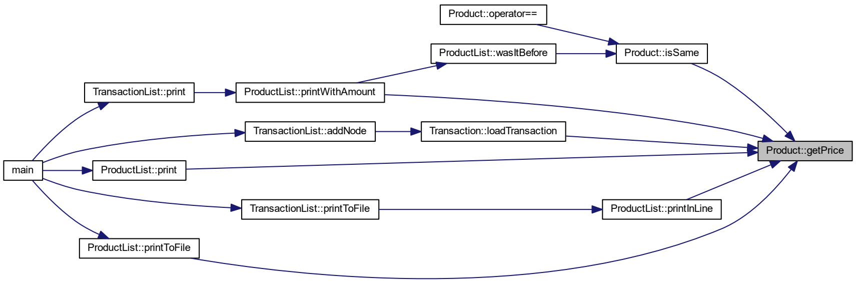
Here is the caller graph for this function:



4.6.2.3 getPrice()

```
double Product::getPrice ( )
```

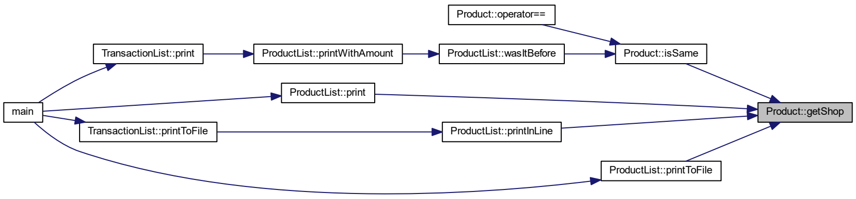
Here is the caller graph for this function:



4.6.2.4 getShop()

```
std::string Product::getShop ( )
```

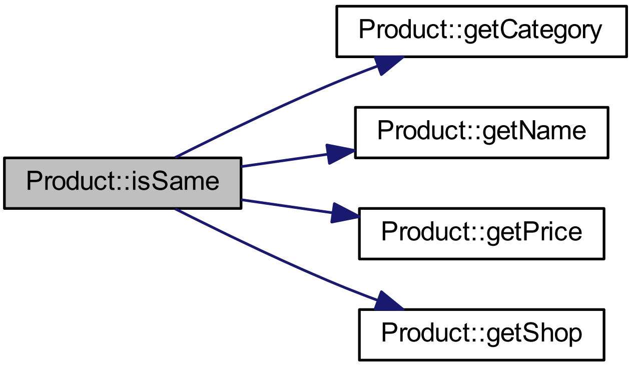
Here is the caller graph for this function:



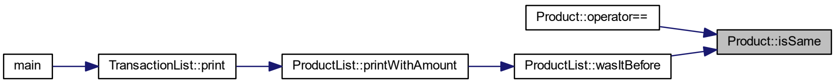
4.6.2.5 isSame()

```
bool Product::isSame (
            Product product )
```

Here is the call graph for this function:



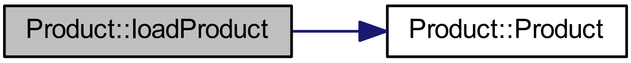
Here is the caller graph for this function:



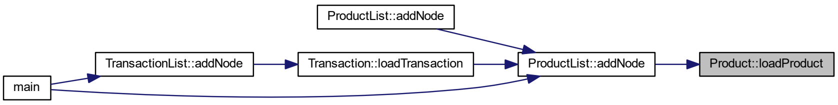
4.6.2.6 loadProduct() [1/2]

```
Product Product::loadProduct ( )  [static]
```

Here is the call graph for this function:



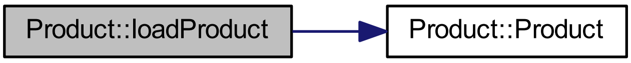
Here is the caller graph for this function:



4.6.2.7 loadProduct() [2/2]

```
Product Product::loadProduct (
          std::string shop )  [static]
```

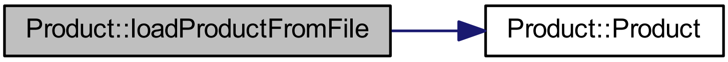
Here is the call graph for this function:



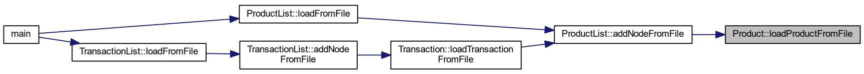
4.6.2.8 loadProductFromFile()

```
Product Product::loadProductFromFile (
          std::ifstream & file )  [static]
```

Here is the call graph for this function:



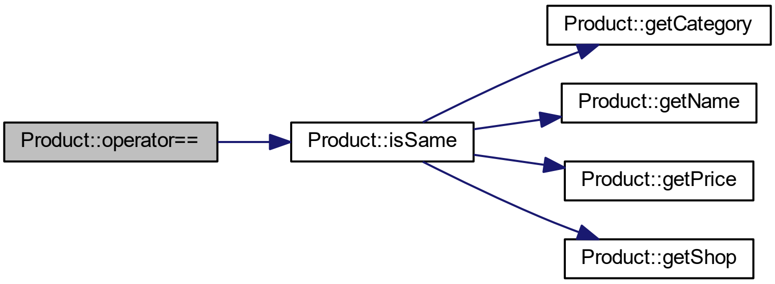
Here is the caller graph for this function:


main
ProductList::loadFromFile
TransactionList::loadFromFile
TransactionList::addNode FromFile
Transaction::loadTransaction FromFile
ProductList::addNodeFromFile
Product::loadProductFromFile

4.6.2.9 operator==()

```
bool Product::operator== (
            Product product )
```

Here is the call graph for this function:



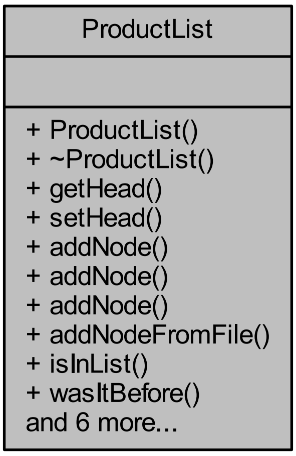
The documentation for this class was generated from the following files:

- Product.h
- Product.cpp

4.7 ProductList Class Reference

```
#include <ProductList.h>
```

Collaboration diagram for ProductList:



Public Member Functions

- ProductList ()
- ∼ProductList ()
- ProductNode ∗ getHead ()
- void setHead (ProductNode ∗)
- void addNode ()
- void addNode (Product, ProductList &)
- void addNode (ProductList &, std::string shop, int amount)
- void addNodeFromFile (std::ifstream &)
- bool isInList (Product)
- bool wasItBefore (ProductNode ∗Node)
- int howManyInList (Product)
- void print ()
- void printWithAmount ()
- void printToFile ()
- void printInLine (std::ofstream &)
- void loadFromFile ()

4.7.1 Constructor & Destructor Documentation

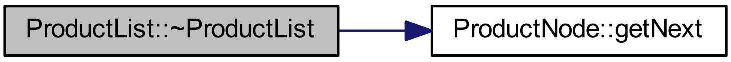
4.7.1.1 ProductList()

```
ProductList::ProductList ( )
```

4.7.1.2 ∼ProductList()

```
ProductList::∼ProductList ( )
```

Here is the call graph for this function:

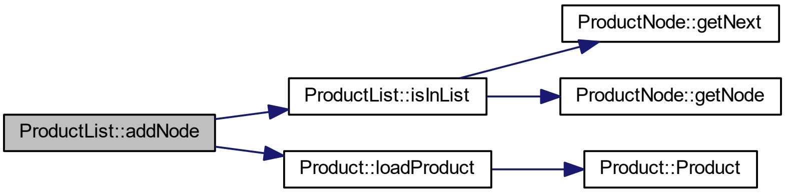


4.7.2 Member Function Documentation

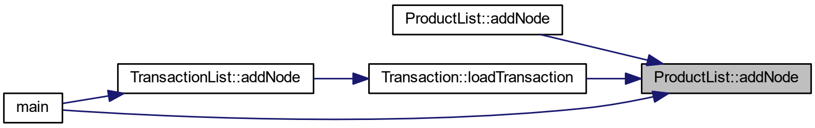
4.7.2.1 addNode() [1/3]

```
void ProductList::addNode ( )
```

Here is the call graph for this function:



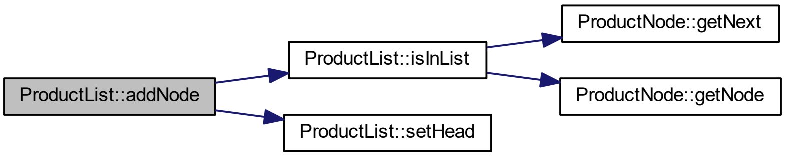
Here is the caller graph for this function:



4.7.2.2 addNode() [2/3]

```
void ProductList::addNode (
            Product product,
            ProductList & products )
```

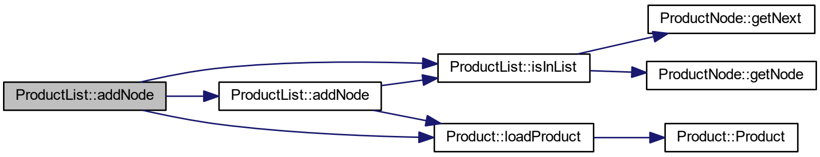
Here is the call graph for this function:



4.7.2.3 addNode() [3/3]

```
void ProductList::addNode (
            ProductList & products,
            std::string shop,
            int amount )
```

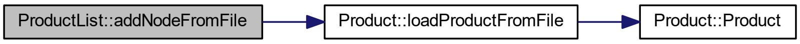
Here is the call graph for this function:



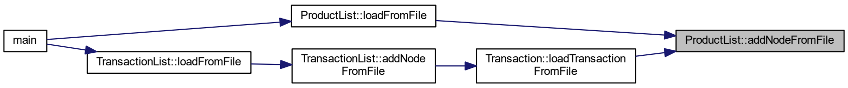
4.7.2.4 addNodeFromFile()

```
void ProductList::addNodeFromFile (
            std::ifstream & file )
```

Here is the call graph for this function:



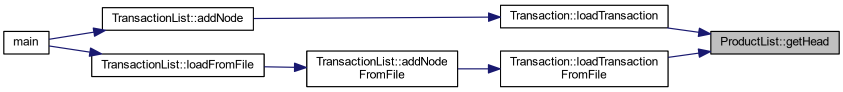
Here is the caller graph for this function:


main
ProductList::loadFromFile
TransactionList::loadFromFile
TransactionList::addNode FromFile
Transaction::loadTransaction FromFile
ProductList::addNodeFromFile

4.7.2.5 getHead()

```
ProductNode * ProductList::getHead ( )
```

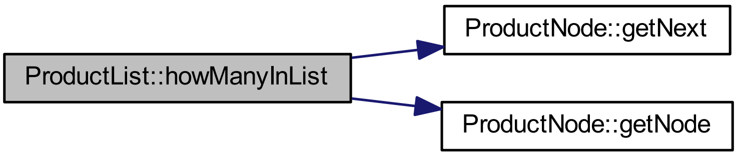
Here is the caller graph for this function:


main
TransactionList::addNode
TransactionList::loadFromFile
TransactionList::addNode FromFile
Transaction::loadTransaction
Transaction::loadTransaction FromFile
ProductList::getHead

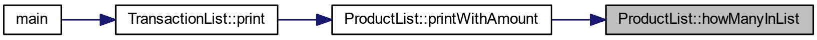
4.7.2.6 howManyInList()

```
int ProductList::howManyInList (
            Product product )
```

Here is the call graph for this function:



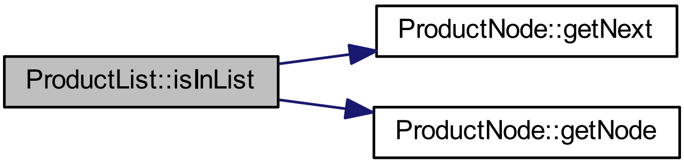
Here is the caller graph for this function:



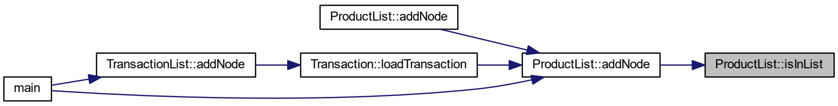
4.7.2.7 isInList()

```
bool ProductList::isInList (
            Product product )
```

Here is the call graph for this function:



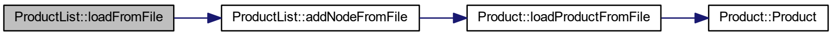
Here is the caller graph for this function:



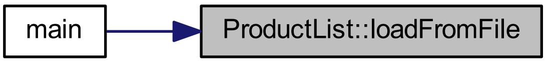
4.7.2.8 loadFromFile()

```
void ProductList::loadFromFile ( )
```

Here is the call graph for this function:


ProductList::loadFromFile
ProductList::addNodeFromFile
Product::loadProductFromFile
Product::Product

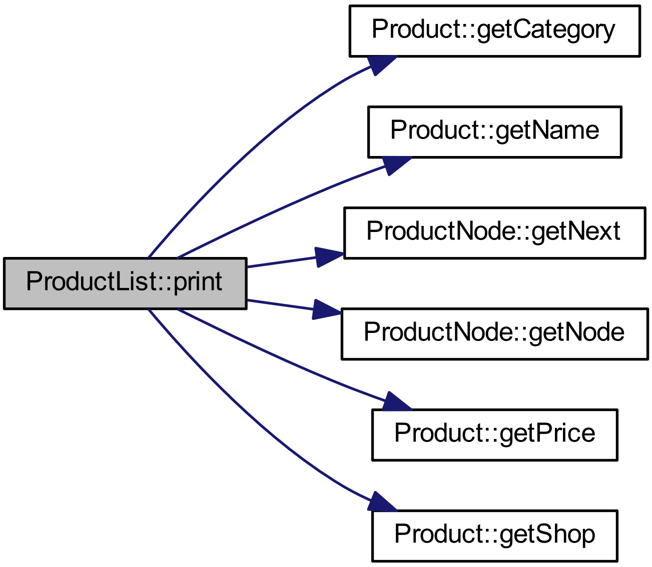
Here is the caller graph for this function:



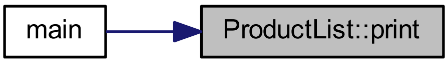
4.7.2.9 print()

```
void ProductList::print ( )
```

Here is the call graph for this function:



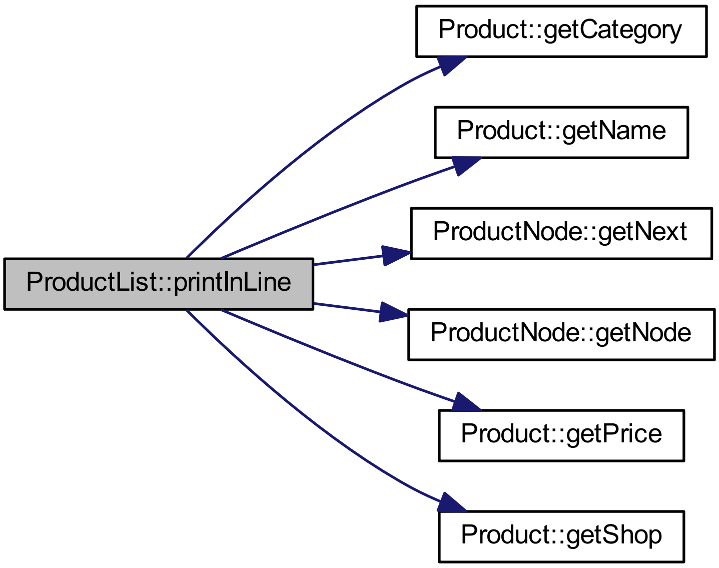
Here is the caller graph for this function:



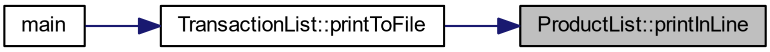
4.7.2.10 printInLine()

```
void ProductList::printInLine (
             std::ofstream & file )
```

Here is the call graph for this function:



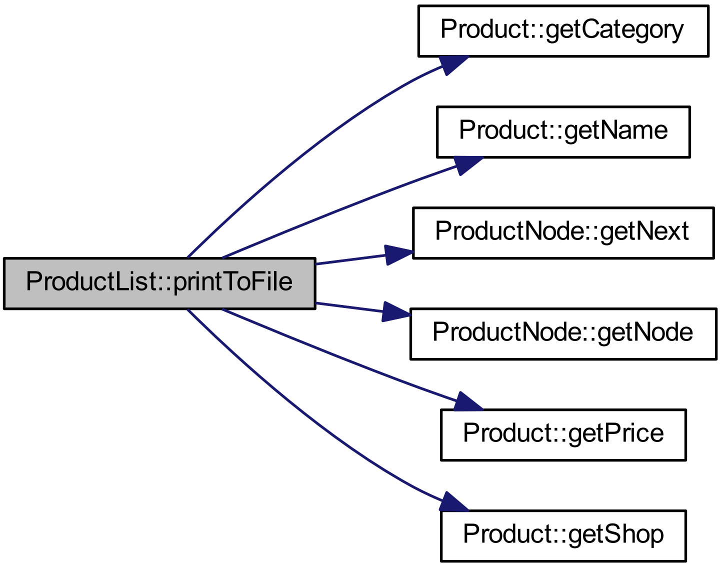
Here is the caller graph for this function:



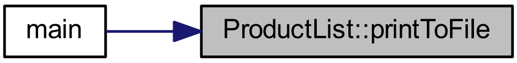
4.7.2.11 printToFile()

```
void ProductList::printToFile ( )
```

Here is the call graph for this function:



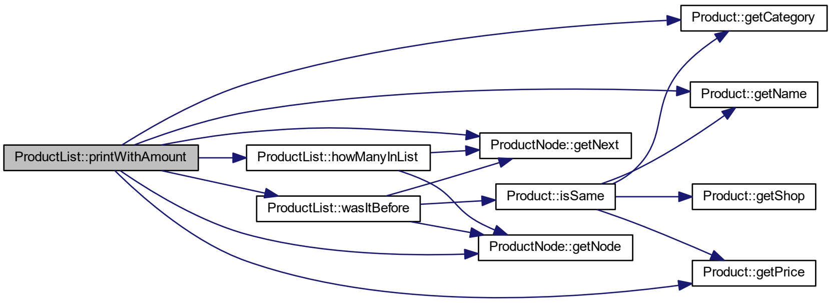
Here is the caller graph for this function:



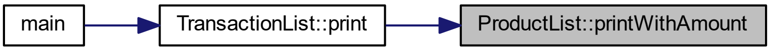
4.7.2.12 printWithAmount()

```
void ProductList::printWithAmount ( )
```

Here is the call graph for this function:



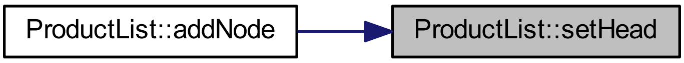
Here is the caller graph for this function:



4.7.2.13 setHead()

```
void ProductList::setHead (
             ProductNode * Node )
```

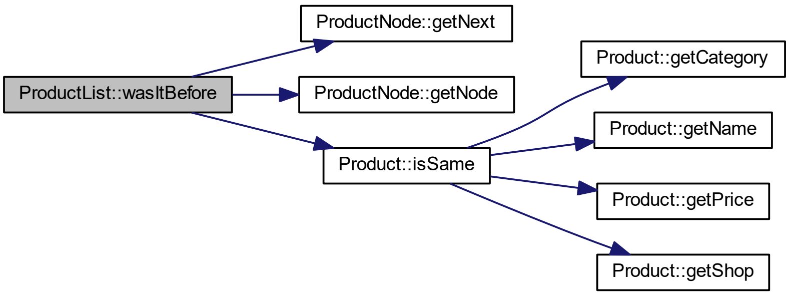
Here is the caller graph for this function:



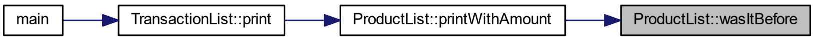
4.7.2.14 wasItBefore()

```
bool ProductList::wasItBefore (
            ProductNode * Node )
```

Here is the call graph for this function:



Here is the caller graph for this function:



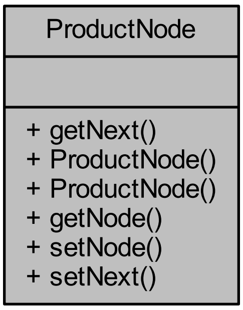
The documentation for this class was generated from the following files:

- ProductList.h
- ProductList.cpp

4.8 ProductNode Class Reference

```
#include <ProductNode.h>
```

Collaboration diagram for ProductNode:



Public Member Functions

- ProductNode ∗ getNext ()
- ProductNode (Product Node)
- ProductNode (Product Node, ProductNode ∗pNext)
- Product getNode ()
- void setNode (Product)
- void setNext (ProductNode ∗)

4.8.1 Constructor & Destructor Documentation

4.8.1.1 ProductNode() [1/2]

```
ProductNode::ProductNode (
            Product Node )  [inline]
```

4.8.1.2 ProductNode() [2/2]

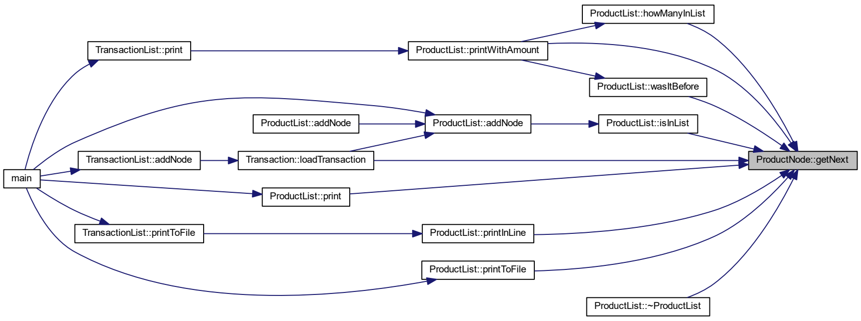
```
ProductNode::ProductNode (
            Product Node,
            ProductNode ∗ pNext )  [inline]
```

4.8.2 Member Function Documentation

4.8.2.1 getNext()

```
ProductNode * ProductNode::getNext ( )
```

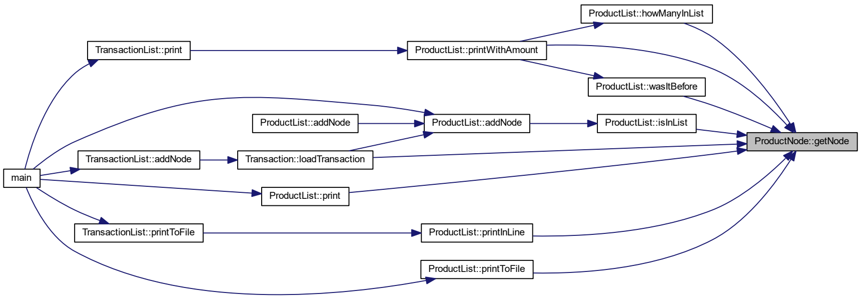
Here is the caller graph for this function:



4.8.2.2 getNode()

```
Product ProductNode::getNode ( )
```

Here is the caller graph for this function:



4.8.2.3 setNext()

```
void ProductNode::setNext (
            ProductNode * pNext )
```

4.8.2.4 setNode()

```
void ProductNode::setNode (
            Product Product )
```

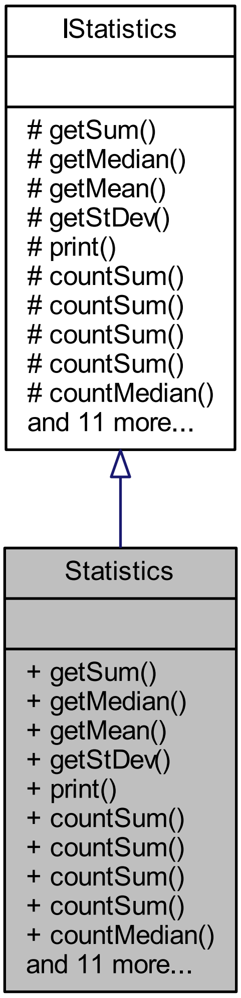
The documentation for this class was generated from the following files:

- ProductNode.h
- ProductNode.cpp

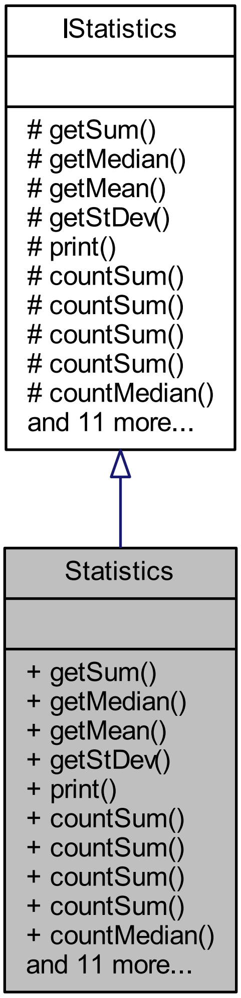
4.9 Statistics Class Reference

```
#include <Statistics.h>
```

Inheritance diagram for Statistics:



Collaboration diagram for Statistics:



Public Member Functions

- double getSum ()
- double getMedian ()
- double getMean ()
- double getStDev ()
- void print ()
- void countSum (TransactionNode ∗)
- void countSum (TransactionNode ∗, Member member)
- void countSum (TransactionNode ∗, Member member, Date start, Date end)
- void countSum (TransactionNode ∗, Date start, Date end)
- void countMedian (TransactionNode ∗)
- void countMedian (TransactionNode ∗, Member member)
- void countMedian (TransactionNode ∗, Member member, Date start, Date end)

- void countMedian (TransactionNode ∗, Date start, Date end)
- void countMean (TransactionNode ∗)
- void countMean (TransactionNode ∗, Member member)
- void countMean (TransactionNode ∗, Member member, Date start, Date end)
- void countMean (TransactionNode ∗, Date start, Date end)
- void countStandardDeviation (TransactionNode ∗)
- void countStandardDeviation (TransactionNode ∗, Member member)
- void countStandardDeviation (TransactionNode ∗, Member member, Date start, Date end)
- void countStandardDeviation (TransactionNode ∗, Date start, Date end)

Additional Inherited Members

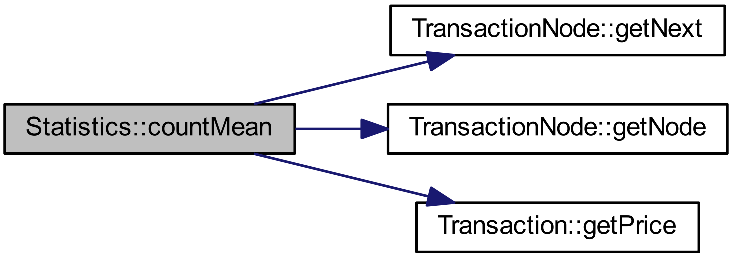
4.9.1 Member Function Documentation

4.9.1.1 countMean() [1/4]

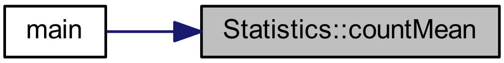
```
void Statistics::countMean (
            TransactionNode ∗ pHead )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:



Here is the caller graph for this function:

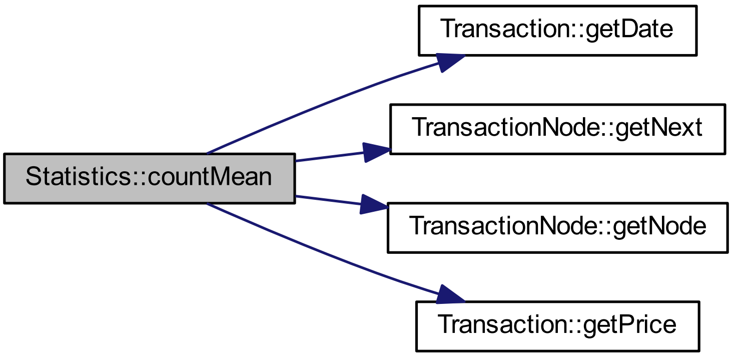


4.9.1.2 countMean() [2/4]

```
void Statistics::countMean (
            TransactionNode * pHead,
            Date start,
            Date end )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

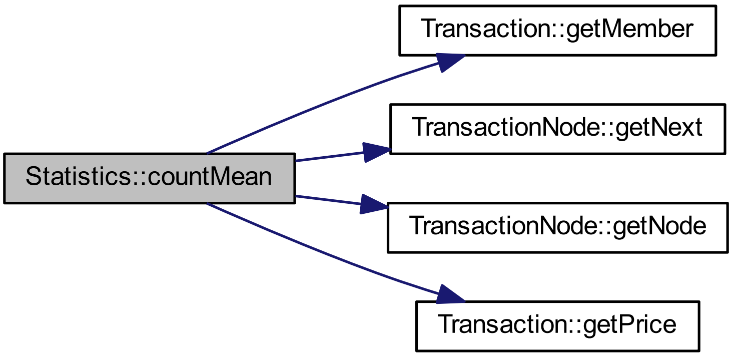


4.9.1.3 countMean() [3/4]

```
void Statistics::countMean (
            TransactionNode * pHead,
            Member member )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

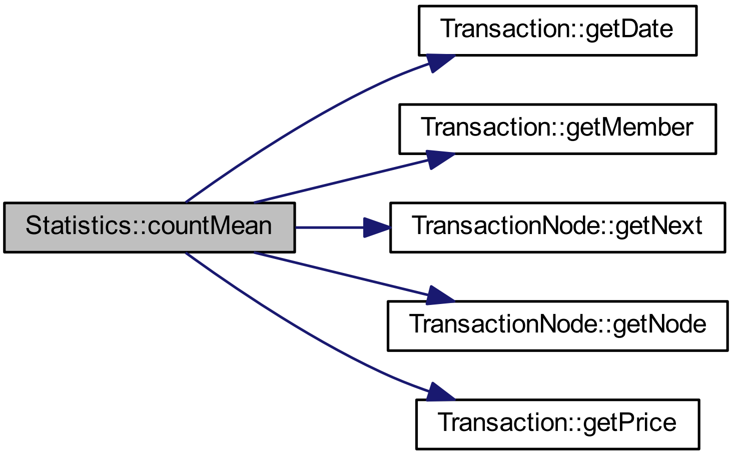


4.9.1.4 countMean() [4/4]

```
void Statistics::countMean (
            TransactionNode * pHead,
            Member member,
            Date start,
            Date end )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

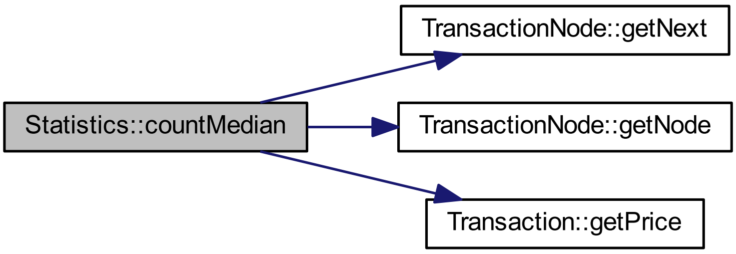


4.9.1.5 countMedian() [1/4]

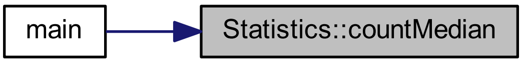
```
void Statistics::countMedian (
            TransactionNode * pHead )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:



Here is the caller graph for this function:

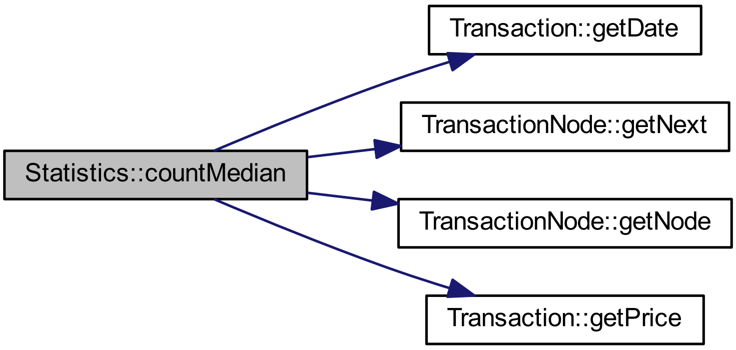


4.9.1.6 countMedian() [2/4]

```
void Statistics::countMedian (
             TransactionNode * pHead,
             Date start,
             Date end )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

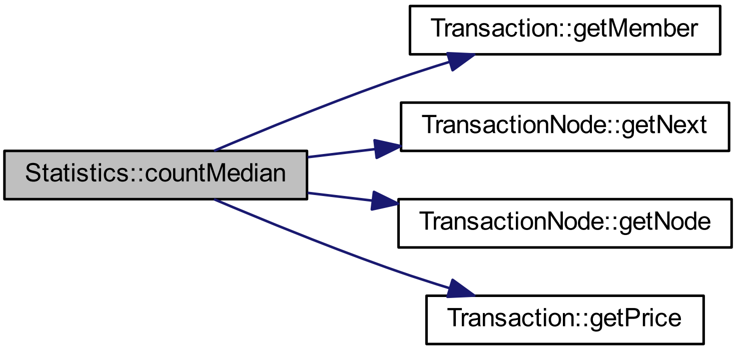


4.9.1.7 countMedian() [3/4]

```
void Statistics::countMedian (
            TransactionNode * pHead,
            Member member )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

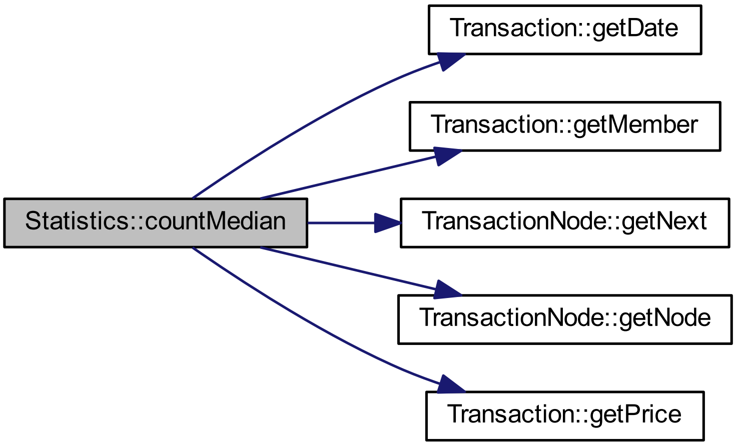


4.9.1.8 countMedian() [4/4]

```
void Statistics::countMedian (
            TransactionNode * pHead,
            Member member,
            Date start,
            Date end )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

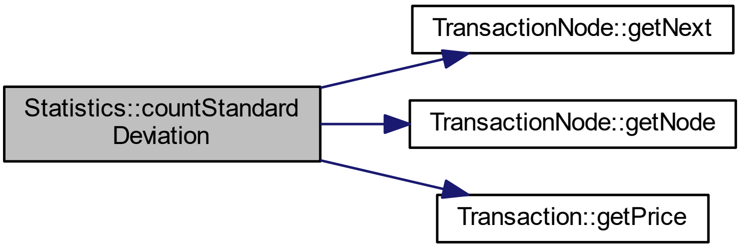


4.9.1.9 countStandardDeviation() [1/4]

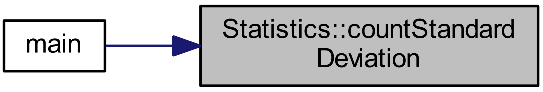
```
void Statistics::countStandardDeviation (
            TransactionNode * pHead )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:



Here is the caller graph for this function:

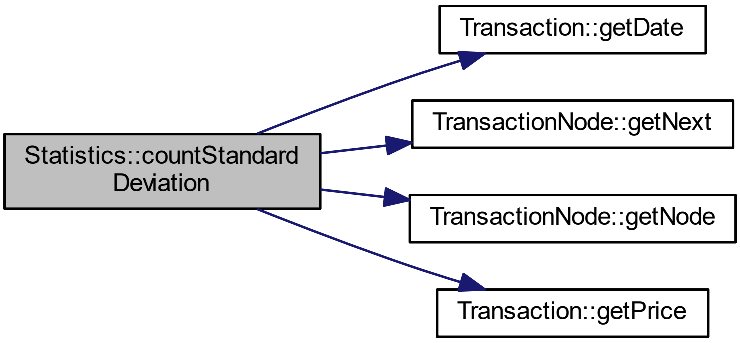


4.9.1.10 countStandardDeviation() [2/4]

```
void Statistics::countStandardDeviation (
            TransactionNode * pHead,
            Date start,
            Date end )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

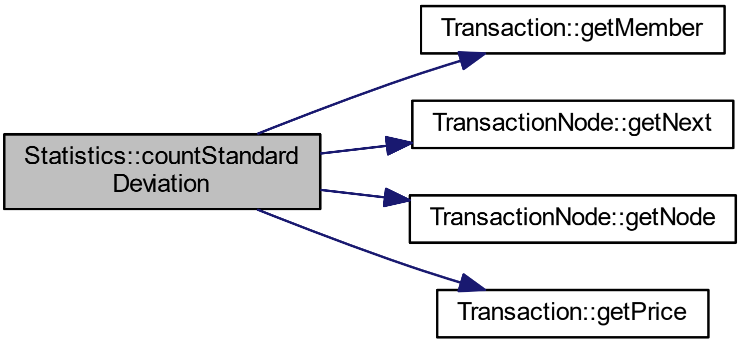


4.9.1.11 countStandardDeviation() [3/4]

```
void Statistics::countStandardDeviation (
            TransactionNode * pHead,
            Member member )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

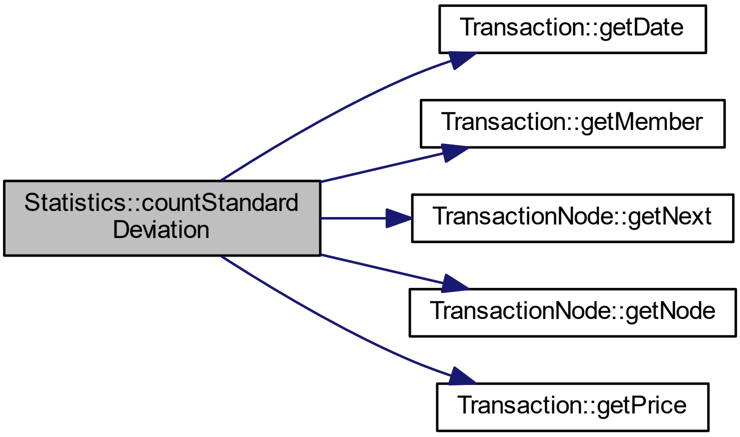


4.9.1.12 countStandardDeviation() [4/4]

```
void Statistics::countStandardDeviation (
            TransactionNode * pHead,
            Member member,
            Date start,
            Date end )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

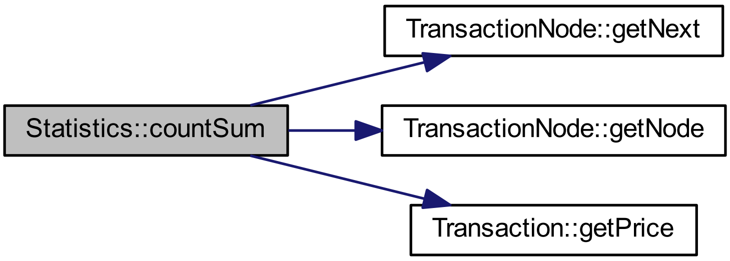


4.9.1.13 countSum() [1/4]

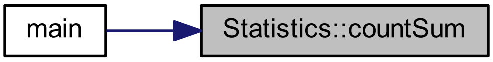
```
void Statistics::countSum (
            TransactionNode * pHead )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:



Here is the caller graph for this function:

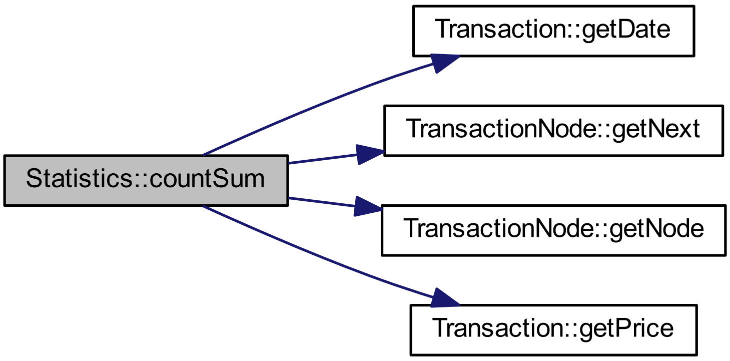


4.9.1.14 countSum() [2/4]

```
void Statistics::countSum (
            TransactionNode * pHead,
            Date start,
            Date end )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

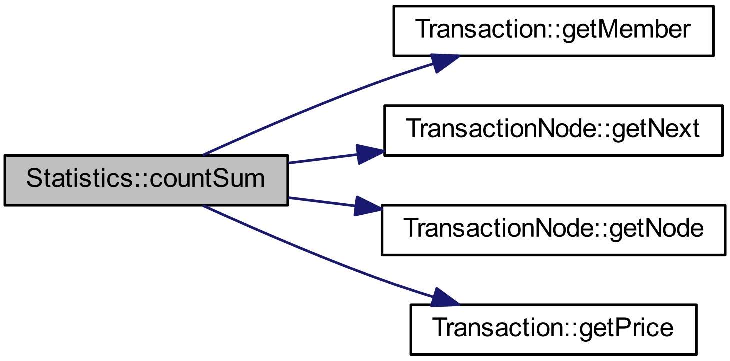


4.9.1.15 countSum() [3/4]

```
void Statistics::countSum (
            TransactionNode * pHead,
            Member member )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

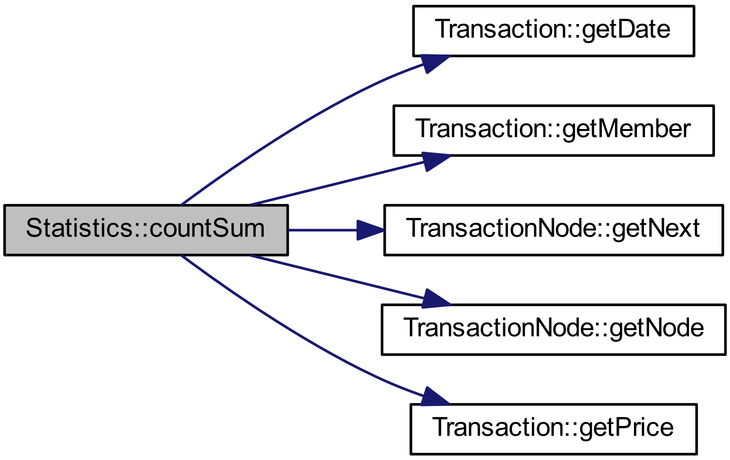


4.9.1.16 countSum() [4/4]

```
void Statistics::countSum (
            TransactionNode * pHead,
            Member member,
            Date start,
            Date end )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:

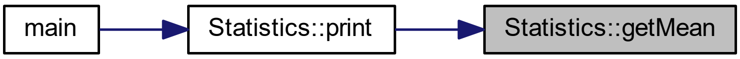


4.9.1.17 getMean()

```
double Statistics::getMean ( )  [virtual]
```

Implements IStatistics.

Here is the caller graph for this function:

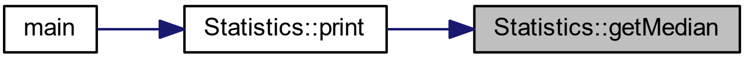


4.9.1.18 getMedian()

```
double Statistics::getMedian ( ) [virtual]
```

Implements IStatistics.

Here is the caller graph for this function:

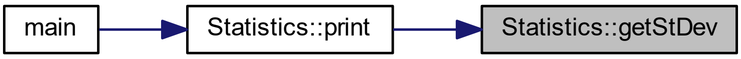


4.9.1.19 getStDev()

```
double Statistics::getStDev ( ) [virtual]
```

Implements IStatistics.

Here is the caller graph for this function:

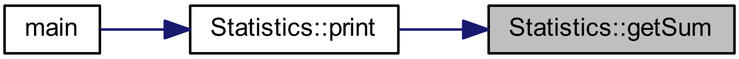


4.9.1.20 getSum()

```
double Statistics::getSum ( ) [virtual]
```

Implements IStatistics.

Here is the caller graph for this function:

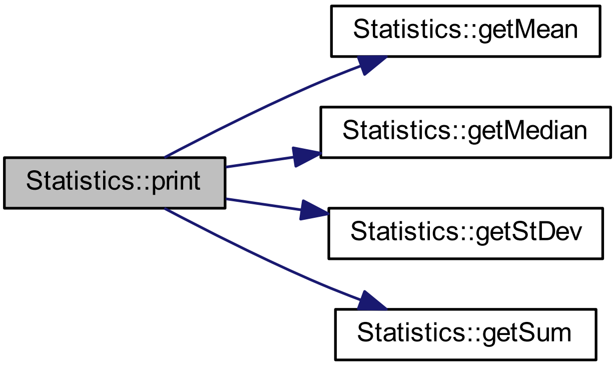


4.9.1.21 print()

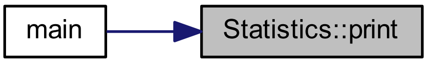
```
void Statistics::print ( )  [virtual]
```

Implements IStatistics.

Here is the call graph for this function:



Here is the caller graph for this function:



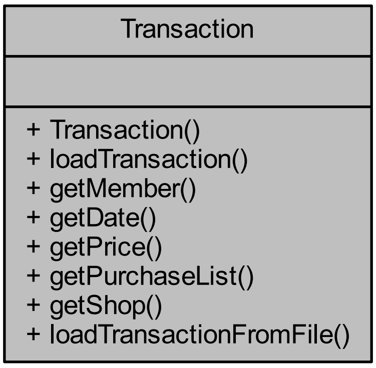
The documentation for this class was generated from the following files:

- Statistics.h
- Statistics.cpp

4.10 Transaction Class Reference

```
#include <Transaction.h>
```

Collaboration diagram for Transaction:



Public Member Functions

- Transaction (Date date, Member member, double price, ProductList ∗PurchaseList, std::string shop)
- Transaction loadTransaction (MemberList &members, ProductList &products)
- Member getMember ()
- Date getDate ()
- double getPrice ()
- ProductList ∗ getPurchaseList ()
- std::string getShop ()

Static Public Member Functions

- static Transaction loadTransactionFromFile (std::ifstream &file)

4.10.1 Constructor & Destructor Documentation

4.10.1.1 Transaction()

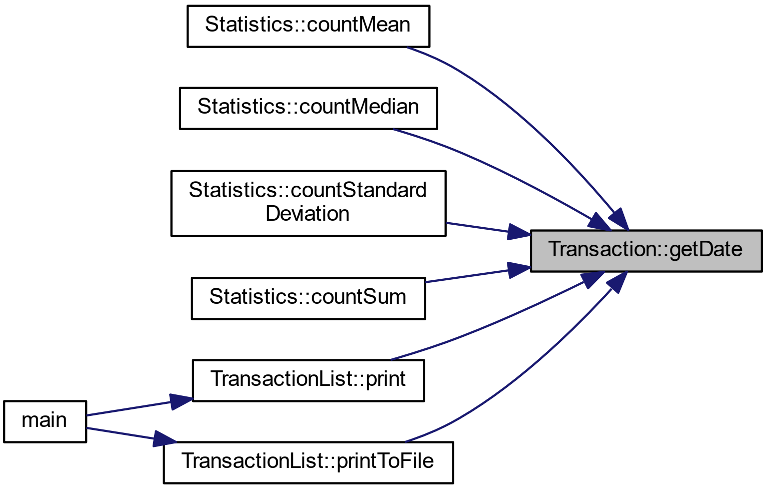
```
Transaction::Transaction (
            Date date,
            Member member,
            double price,
            ProductList ∗ PurchaseList,
            std::string shop )  [inline]
```

4.10.2 Member Function Documentation

4.10.2.1 getDate()

```
Date Transaction::getDate ( )
```

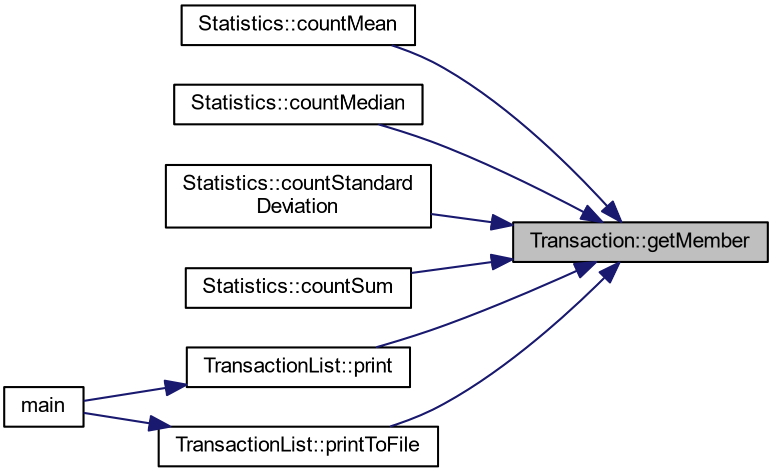
Here is the caller graph for this function:



4.10.2.2 getMember()

```
Member Transaction::getMember ( )
```

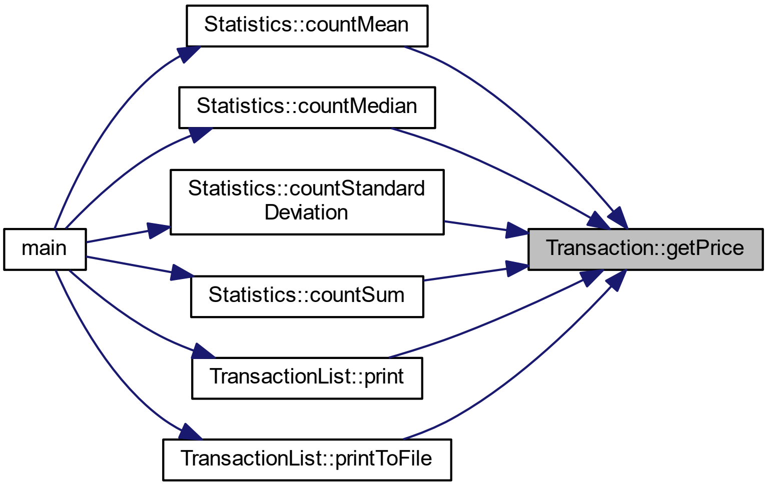
Here is the caller graph for this function:



4.10.2.3 getPrice()

```
double Transaction::getPrice ( )
```

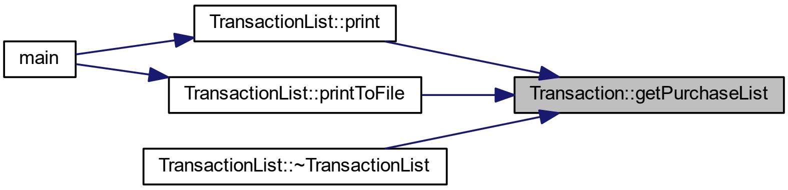
Here is the caller graph for this function:



4.10.2.4 getPurchaseList()

```
ProductList * Transaction::getPurchaseList ( )
```

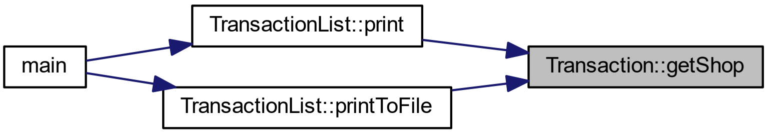
Here is the caller graph for this function:


main
TransactionList::print
TransactionList::printToFile
TransactionList::~TransactionList
Transaction::getPurchaseList

4.10.2.5 getShop()

```
std::string Transaction::getShop ( )
```

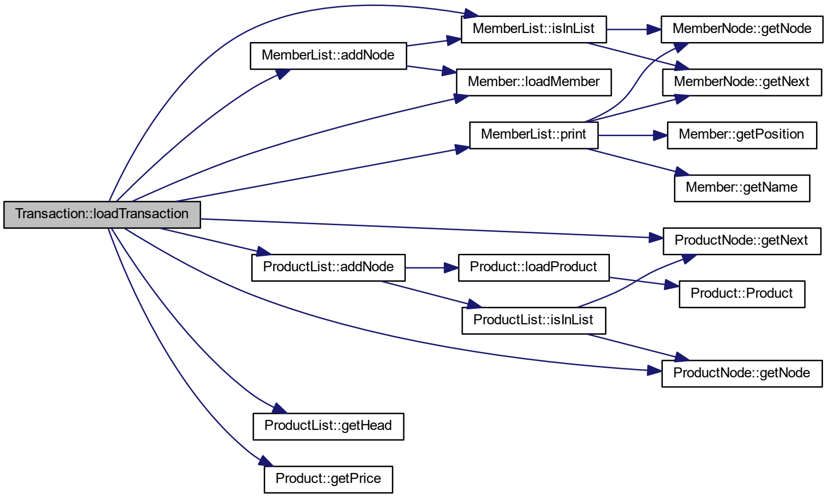
Here is the caller graph for this function:



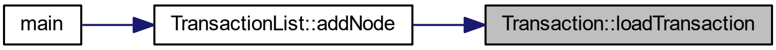
4.10.2.6 loadTransaction()

```
Transaction Transaction::loadTransaction (
            MemberList & members,
            ProductList & products )
```

Here is the call graph for this function:



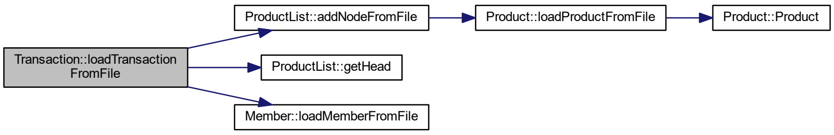
Here is the caller graph for this function:



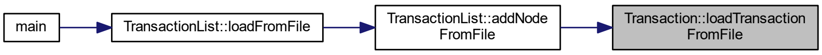
4.10.2.7 loadTransactionFromFile()

```
Transaction Transaction::loadTransactionFromFile (
            std::ifstream & file )  [static]
```

Here is the call graph for this function:


Transaction::loadTransaction FromFile
ProductList::addNodeFromFile
Product::loadProductFromFile
Product::Product
ProductList::getHead
Member::loadMemberFromFile

Here is the caller graph for this function:


main
TransactionList::loadFromFile
TransactionList::addNode FromFile
Transaction::loadTransaction FromFile

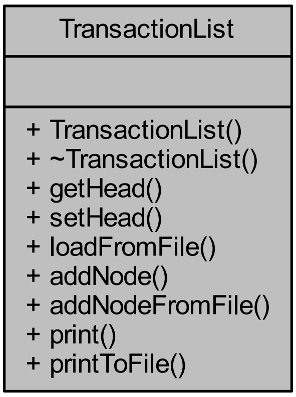
The documentation for this class was generated from the following files:

- Transaction.h
- Transaction.cpp

4.11 TransactionList Class Reference

```
#include <TransactionList.h>
```

Collaboration diagram for TransactionList:



Public Member Functions

- TransactionList ()
- ∼TransactionList ()
- TransactionNode ∗ getHead ()
- void setHead (TransactionNode ∗)
- void loadFromFile ()
- void addNode (MemberList &members, ProductList &products)
- void addNodeFromFile (std::ifstream &)
- void print ()
- void printToFile ()

4.11.1 Constructor & Destructor Documentation

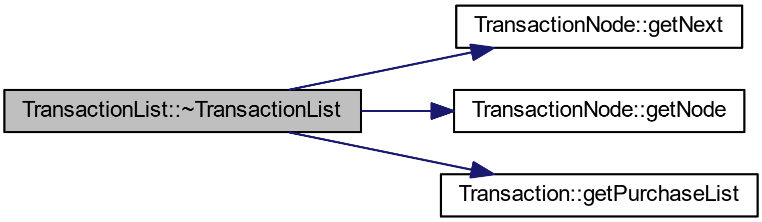
4.11.1.1 TransactionList()

```
TransactionList::TransactionList ( )
```

4.11.1.2 ∼TransactionList()

```
TransactionList::∼TransactionList ( )
```

Here is the call graph for this function:

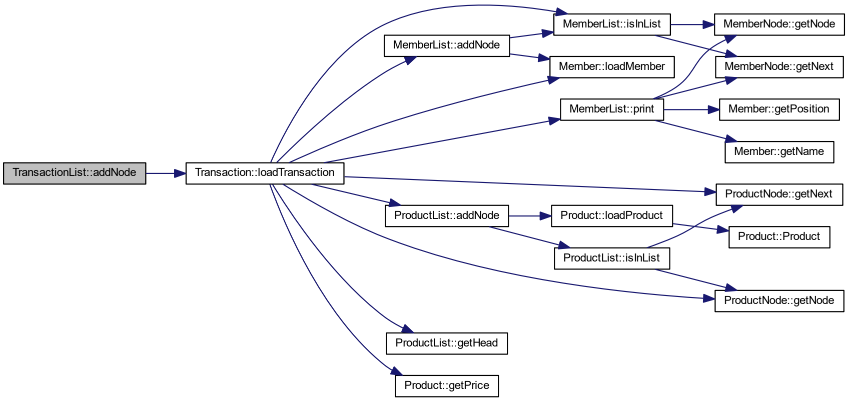

TransactionList::~TransactionList
TransactionNode::getNext
TransactionNode::getNode
Transaction::getPurchaseList

4.11.2 Member Function Documentation

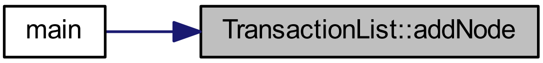
4.11.2.1 addNode()

```
void TransactionList::addNode (
            MemberList & members,
            ProductList & products )
```

Here is the call graph for this function:



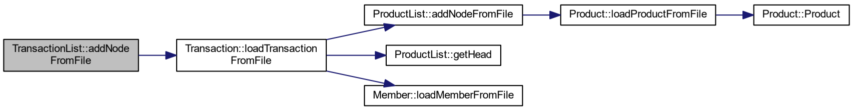
Here is the caller graph for this function:



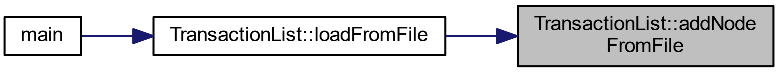
4.11.2.2 addNodeFromFile()

```
void TransactionList::addNodeFromFile (
            std::ifstream & file )
```

Here is the call graph for this function:


TransactionList::addNode FromFile
Transaction::loadTransaction FromFile
ProductList::addNodeFromFile
Product::loadProductFromFile
Product::Product
ProductList::getHead
Member::loadMemberFromFile

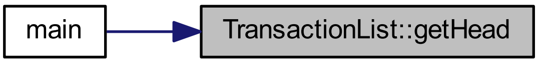
Here is the caller graph for this function:


main
TransactionList::loadFromFile
TransactionList::addNode FromFile

4.11.2.3 getHead()

```
TransactionNode * TransactionList::getHead ( )
```

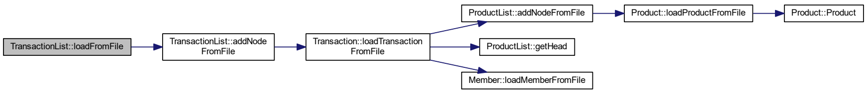
Here is the caller graph for this function:



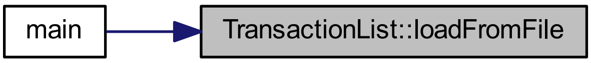
4.11.2.4 loadFromFile()

```
void TransactionList::loadFromFile ( )
```

Here is the call graph for this function:


TransactionList::loadFromFile
TransactionList::addNode FromFile
Transaction::loadTransaction FromFile
ProductList::addNodeFromFile
Product::loadProductFromFile
Product::Product
ProductList::getHead
Member::loadMemberFromFile

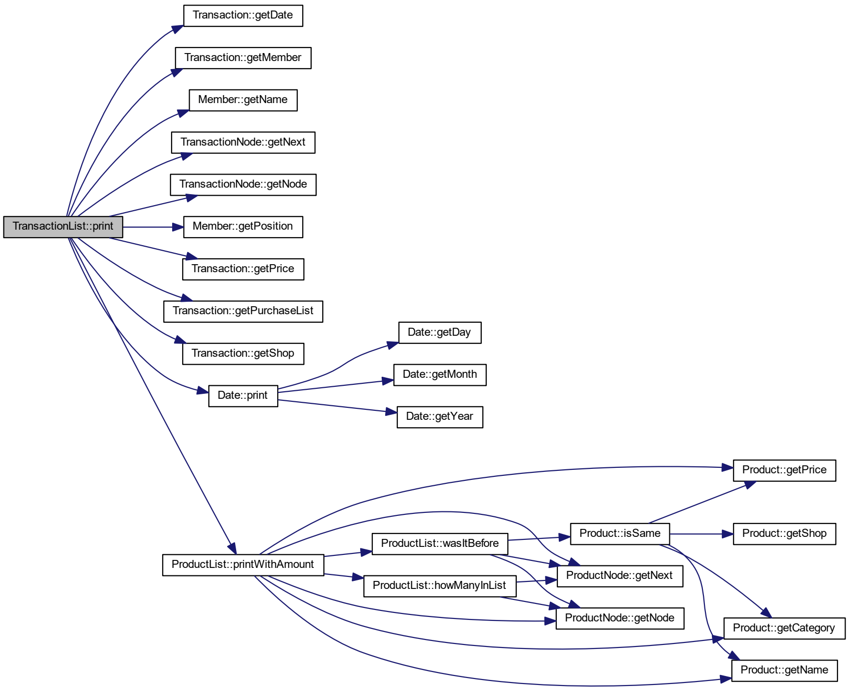
Here is the caller graph for this function:



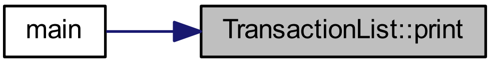
4.11.2.5 print()

```
void TransactionList::print ( )
```

Here is the call graph for this function:



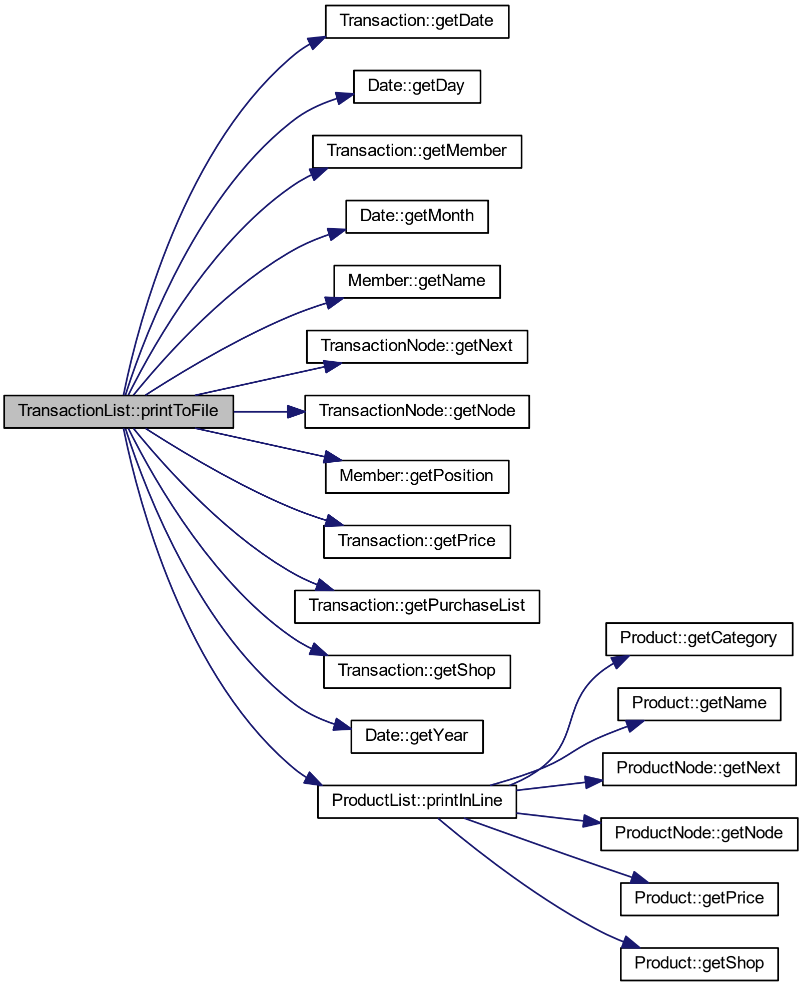
Here is the caller graph for this function:



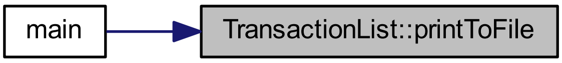
4.11.2.6 printToFile()

```
void TransactionList::printToFile ( )
```

Here is the call graph for this function:



Here is the caller graph for this function:



4.11.2.7 setHead()

```
void TransactionList::setHead (
            TransactionNode * pHead )
```

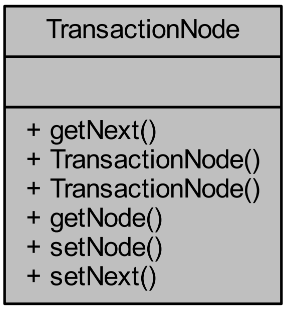
The documentation for this class was generated from the following files:

- TransactionList.h
- TransactionList.cpp

4.12 TransactionNode Class Reference

```
#include <TransactionNode.h>
```

Collaboration diagram for TransactionNode:



Public Member Functions

- TransactionNode ∗ getNext ()
- TransactionNode (Transaction Node)
- TransactionNode (Transaction Node, TransactionNode ∗pNext)
- Transaction getNode ()
- void setNode (Transaction)
- void setNext (TransactionNode ∗)

4.12.1 Constructor & Destructor Documentation

4.12.1.1 TransactionNode() [1/2]

```
TransactionNode::TransactionNode (
            Transaction Node )  [inline]
```

4.12.1.2 TransactionNode() [2/2]

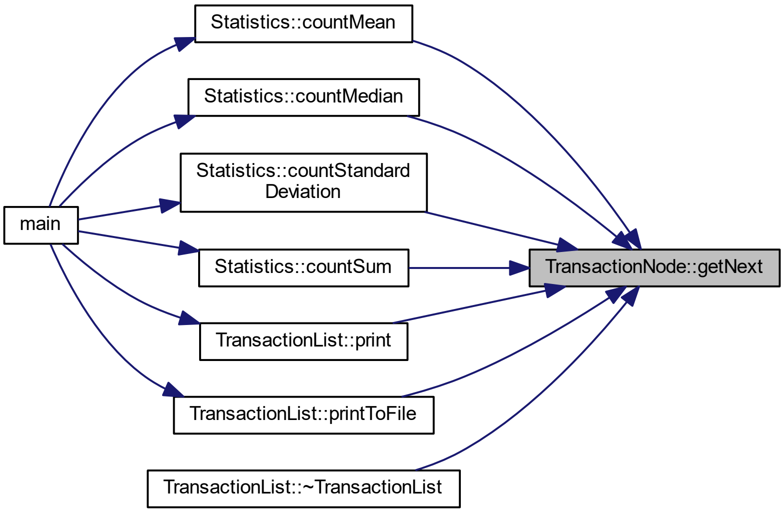
```
TransactionNode::TransactionNode (
            Transaction Node,
            TransactionNode * pNext )  [inline]
```

4.12.2 Member Function Documentation

4.12.2.1 getNext()

```
TransactionNode * TransactionNode::getNext ( )
```

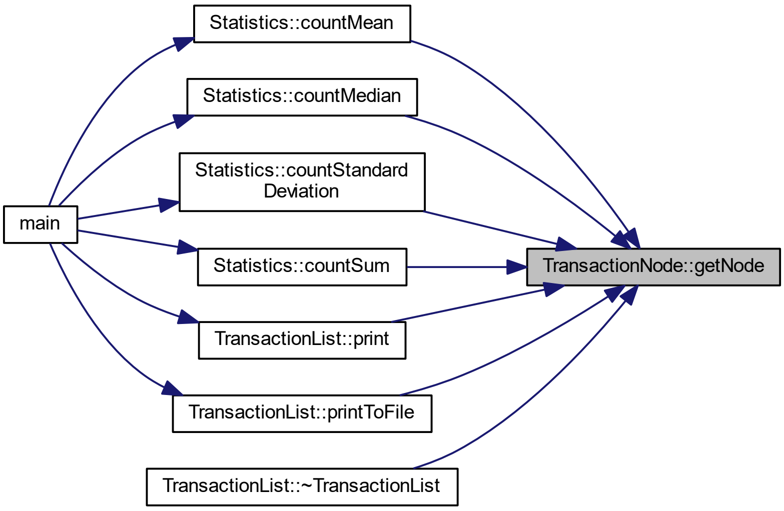
Here is the caller graph for this function:



4.12.2.2 getNode()

```
Transaction TransactionNode::getNode ( )
```

Here is the caller graph for this function:



4.12.2.3 setNext()

```
void TransactionNode::setNext (
             TransactionNode * pNext )
```

4.12.2.4 setNode()

```
void TransactionNode::setNode (
             Transaction Transaction )
```

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

- TransactionNode.h
- TransactionNode.cpp

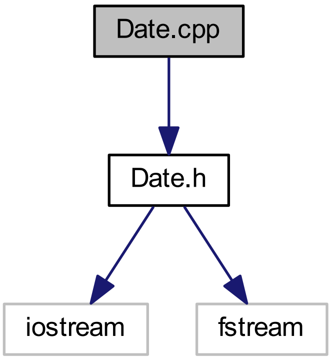
Chapter 5

File Documentation

5.1 Date.cpp File Reference

```
#include "Date.h"
```

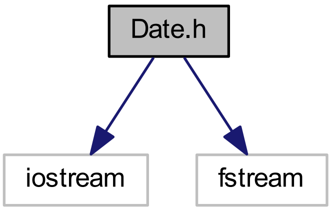
Include dependency graph for Date.cpp:



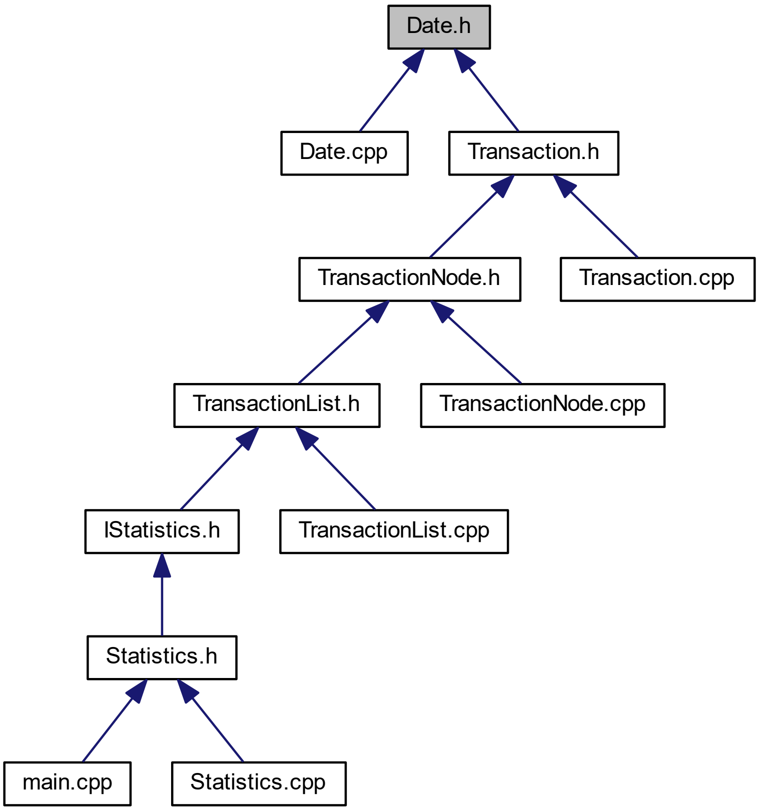
5.2 Date.h File Reference

```
#include <iostream>
#include <fstream>
```

Include dependency graph for Date.h:



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



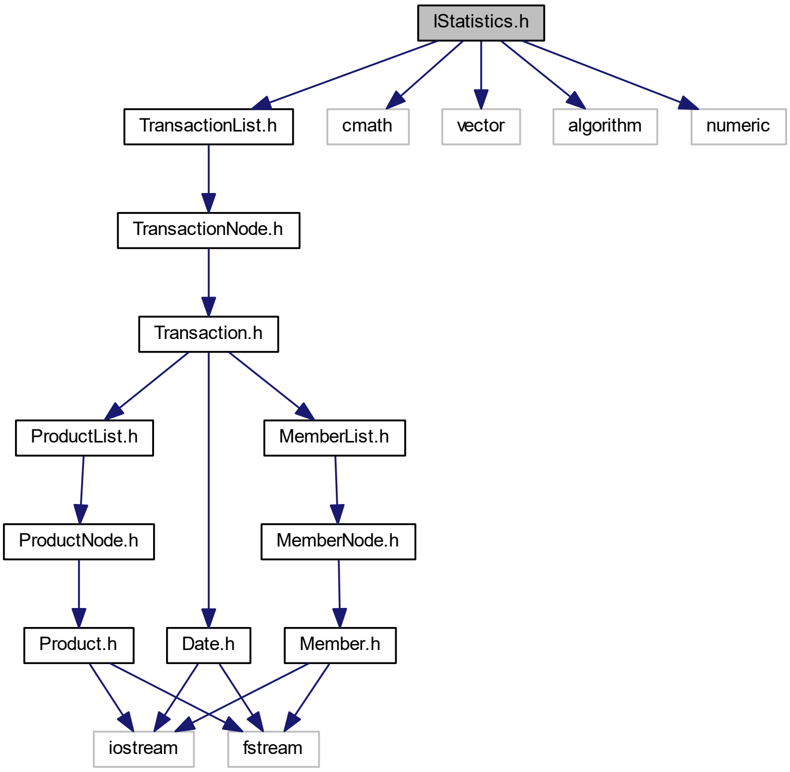
Classes

- class Date

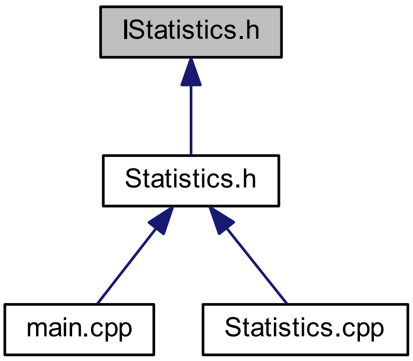
5.3 IStatistics.h File Reference

```
#include "TransactionList.h"
#include <cmath>
#include <vector>
#include <algorithm>
#include <numeric>
```

Include dependency graph for IStatistics.h:



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



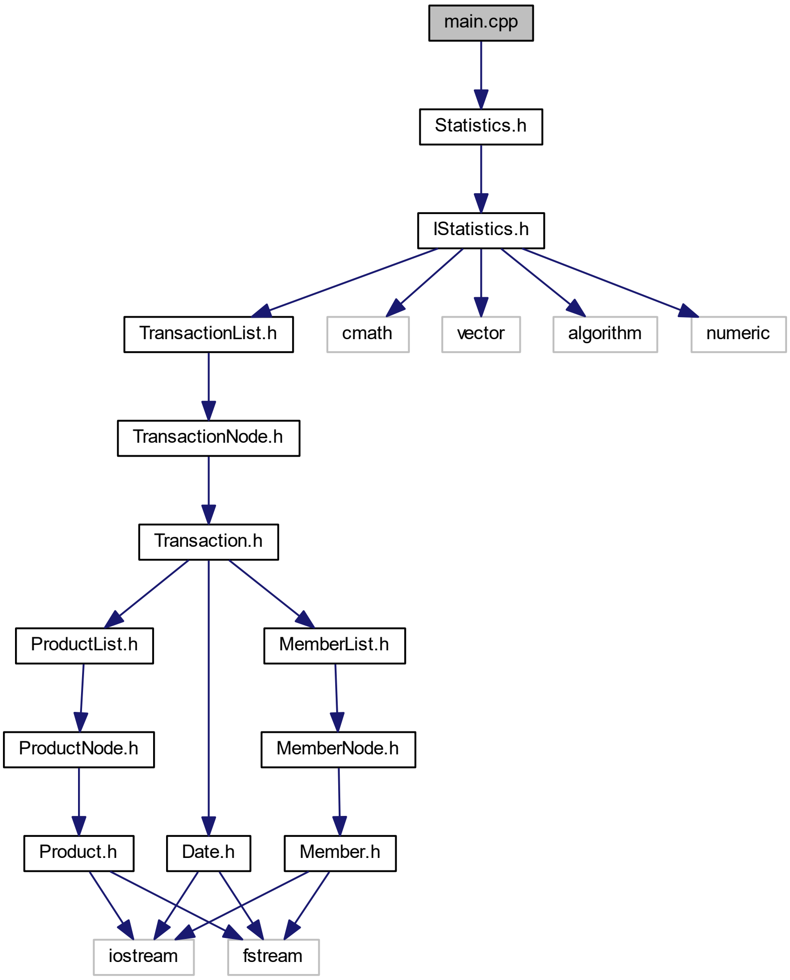
Classes

- class IStatistics

5.4 main.cpp File Reference

```
#include "Statistics.h"
```

Include dependency graph for main.cpp:



Functions

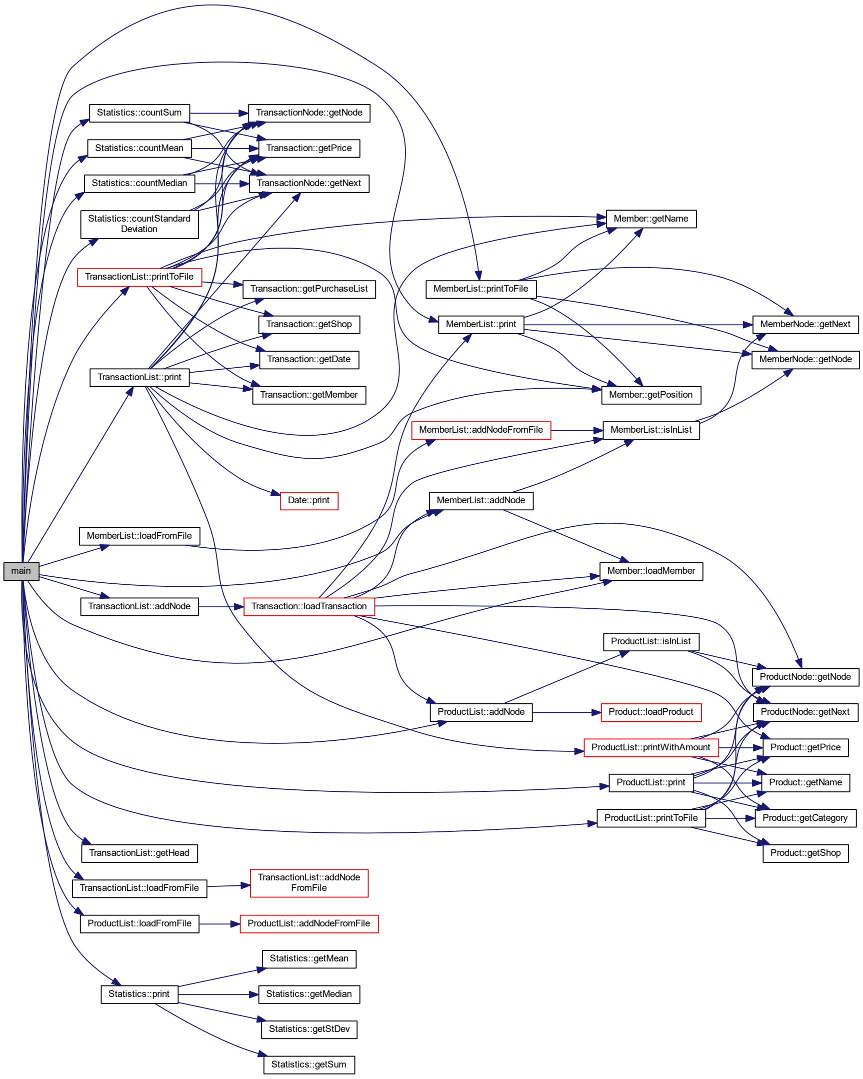
- int main ()

5.4.1 Function Documentation

5.4.1.1 main()

```
int main ( )
```

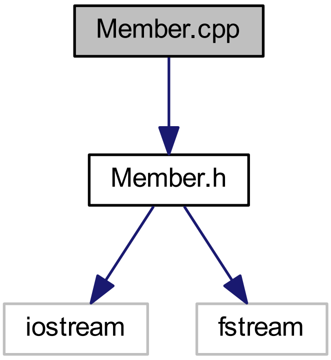
Here is the call graph for this function:



5.5 Member.cpp File Reference

```
#include "Member.h"
```

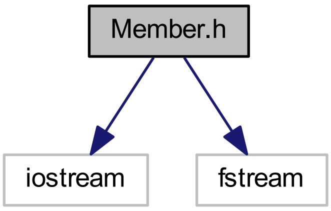
Include dependency graph for Member.cpp:



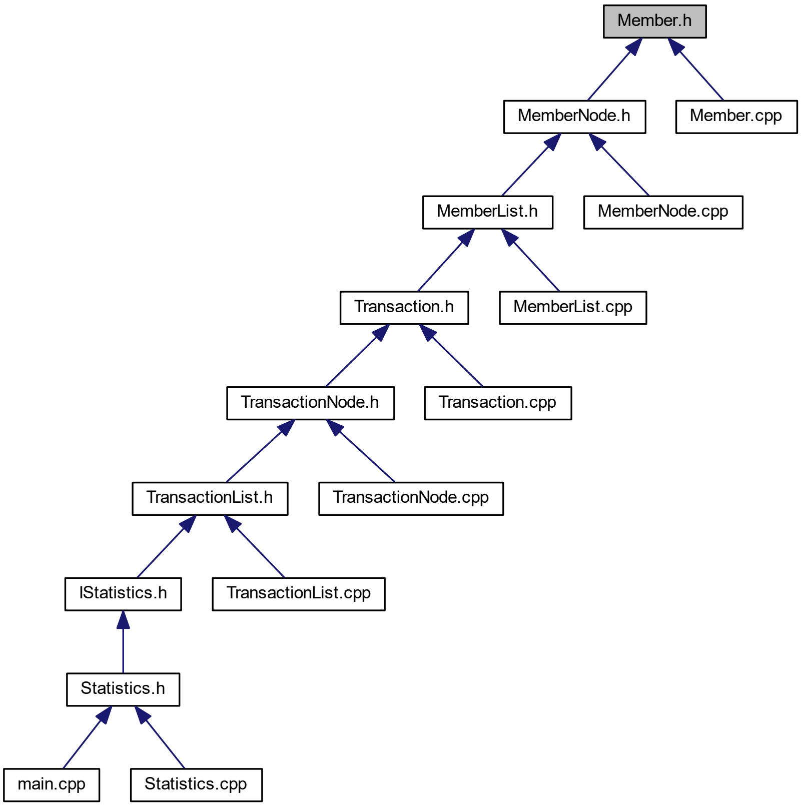
5.6 Member.h File Reference

```
#include <iostream>
#include <fstream>
```

Include dependency graph for Member.h:



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



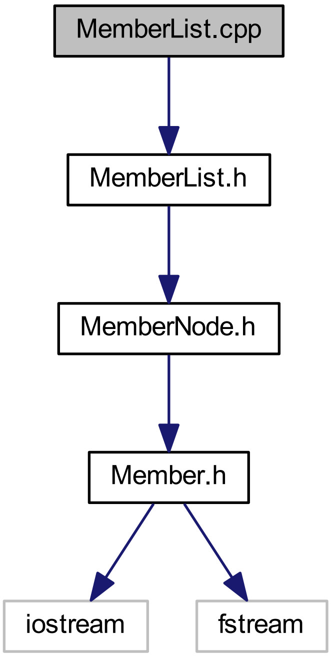
Classes

- class Member

5.7 MemberList.cpp File Reference

```
#include "MemberList.h"
```

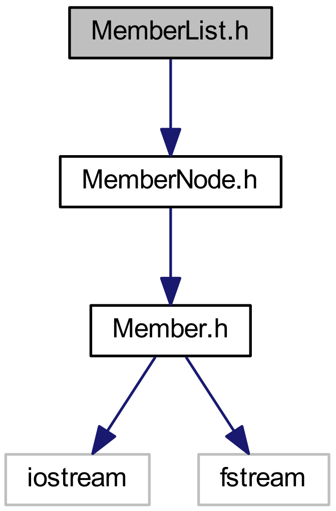
Include dependency graph for MemberList.cpp:



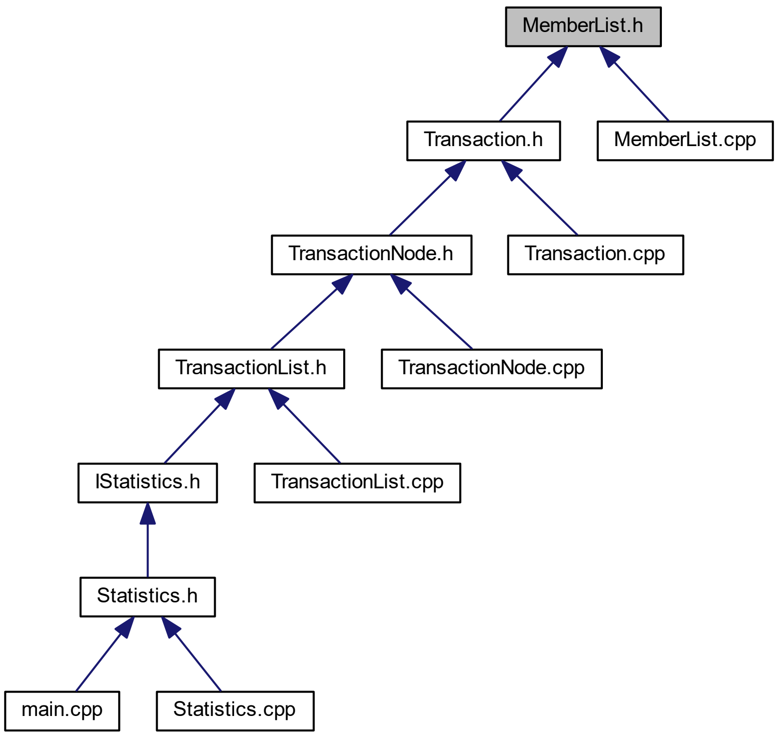
5.8 MemberList.h File Reference

```
#include "MemberNode.h"
```

Include dependency graph for MemberList.h:



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



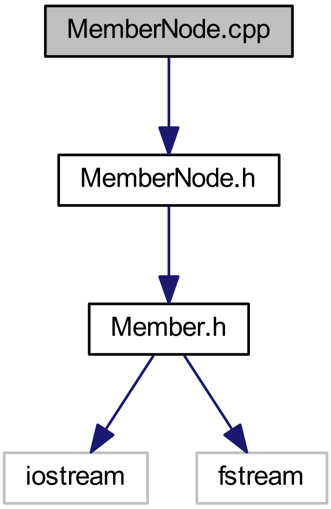
Classes

- class MemberList

5.9 MemberNode.cpp File Reference

```
#include "MemberNode.h"
```

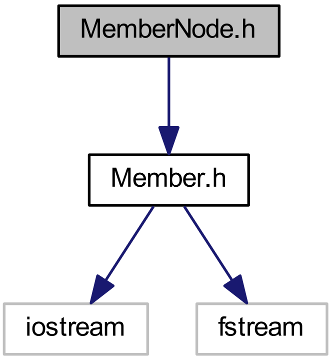
Include dependency graph for MemberNode.cpp:



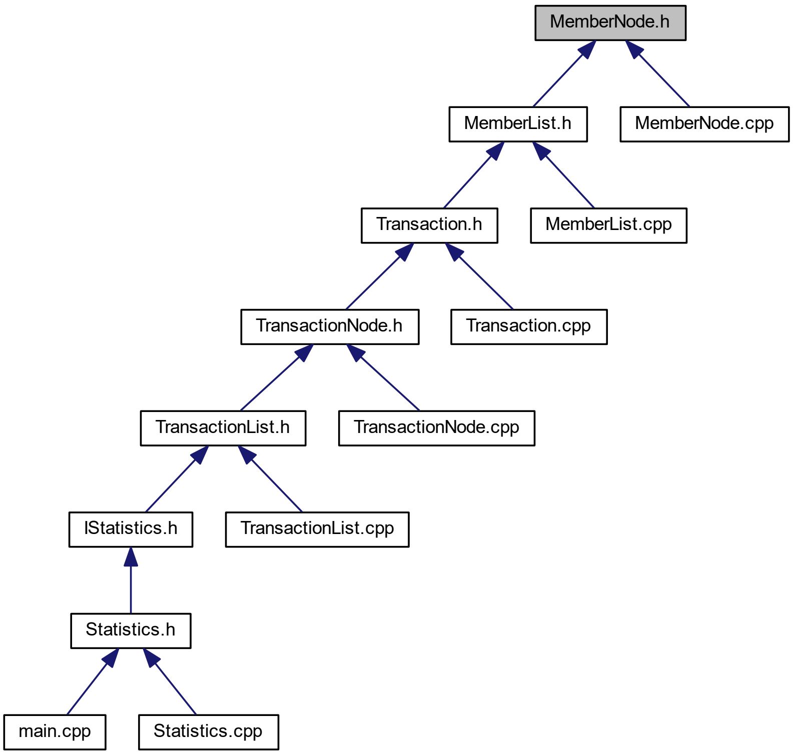
5.10 MemberNode.h File Reference

```
#include "Member.h"
```

Include dependency graph for MemberNode.h:



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



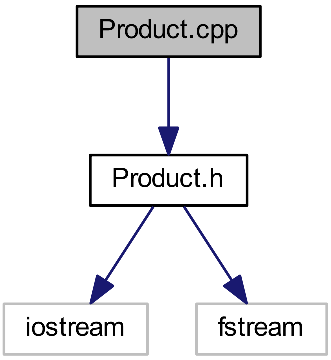
Classes

- class MemberNode

5.11 Product.cpp File Reference

```
#include "Product.h"
```

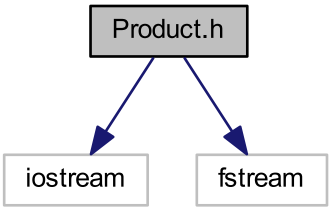
Include dependency graph for Product.cpp:



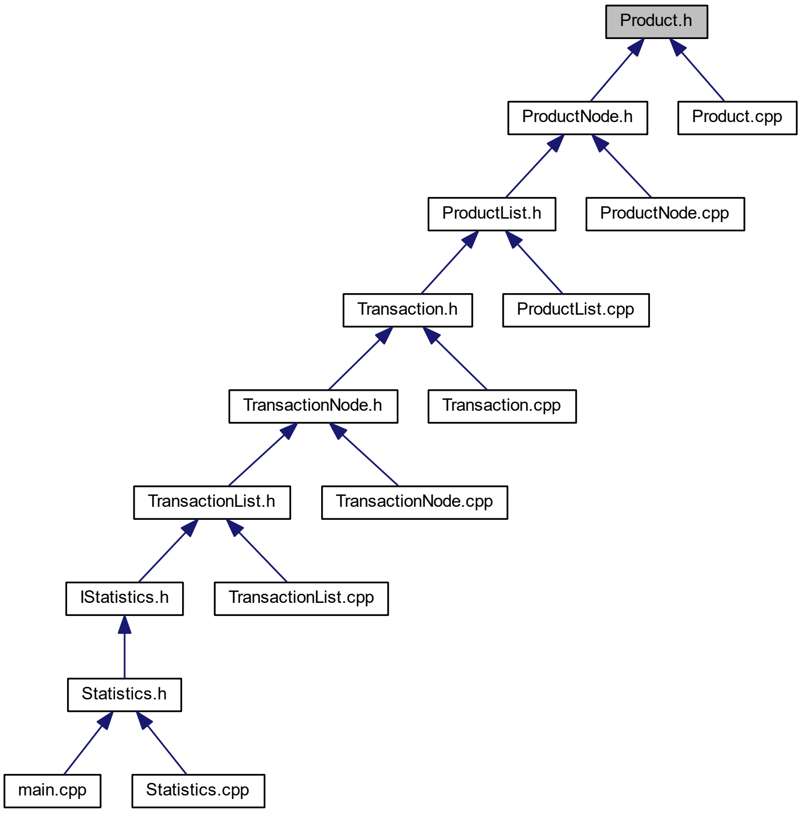
5.12 Product.h File Reference

```
#include <iostream>
#include <fstream>
```

Include dependency graph for Product.h:



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



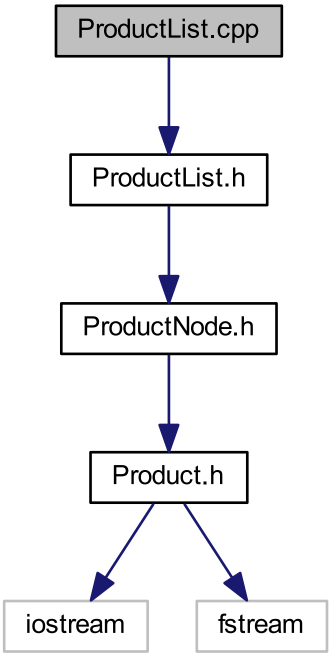
Classes

- class Product

5.13 ProductList.cpp File Reference

```
#include "ProductList.h"
```

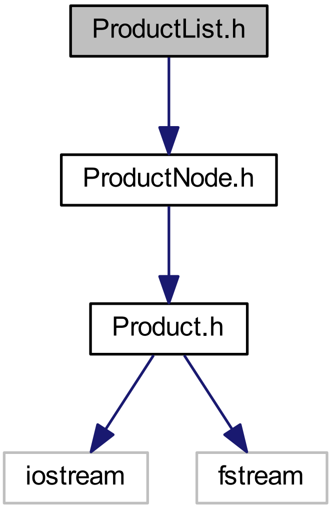
Include dependency graph for ProductList.cpp:



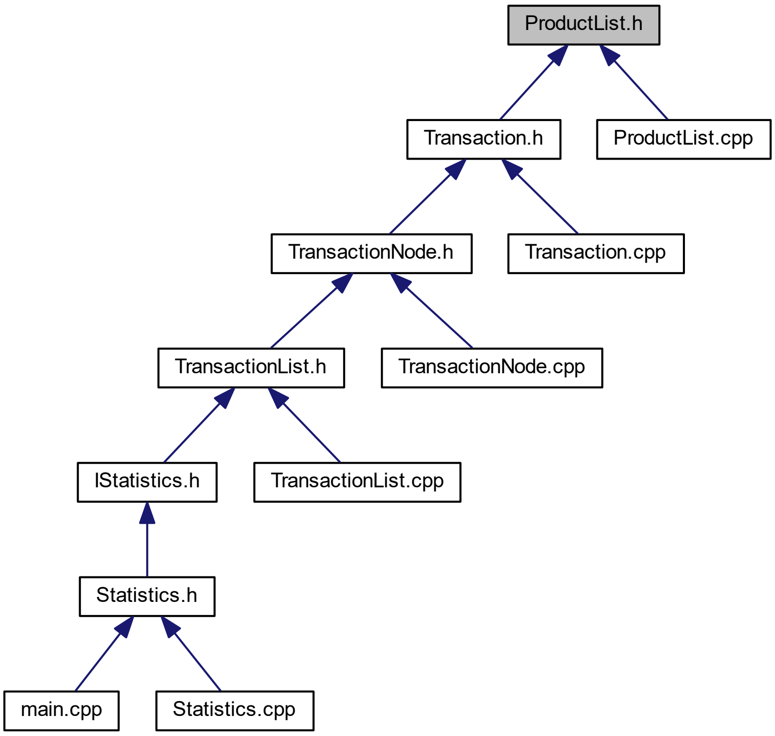
5.14 ProductList.h File Reference

```
#include "ProductNode.h"
```

Include dependency graph for ProductList.h:



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



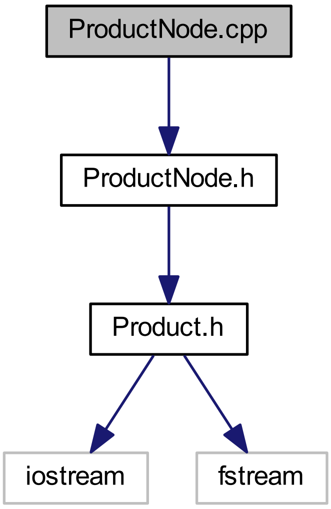
Classes

- class ProductList

5.15 ProductNode.cpp File Reference

```
#include "ProductNode.h"
```

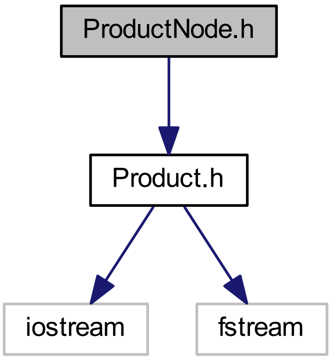
Include dependency graph for ProductNode.cpp:



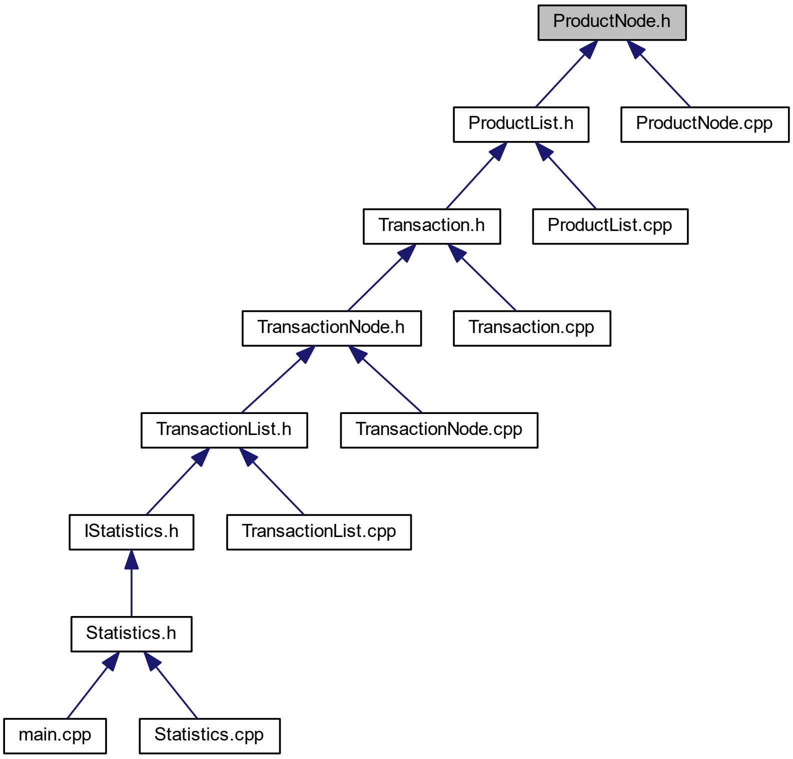
5.16 ProductNode.h File Reference

```
#include "Product.h"
```

Include dependency graph for ProductNode.h:



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



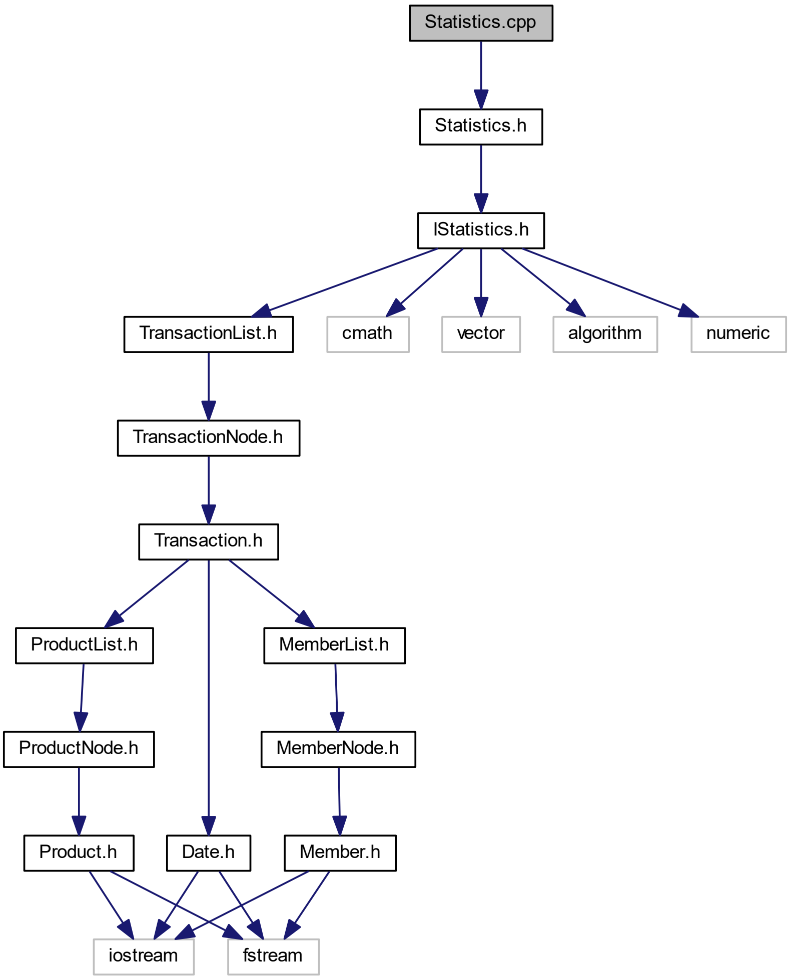
Classes

- class ProductNode

5.17 Statistics.cpp File Reference

```
#include "Statistics.h"
```

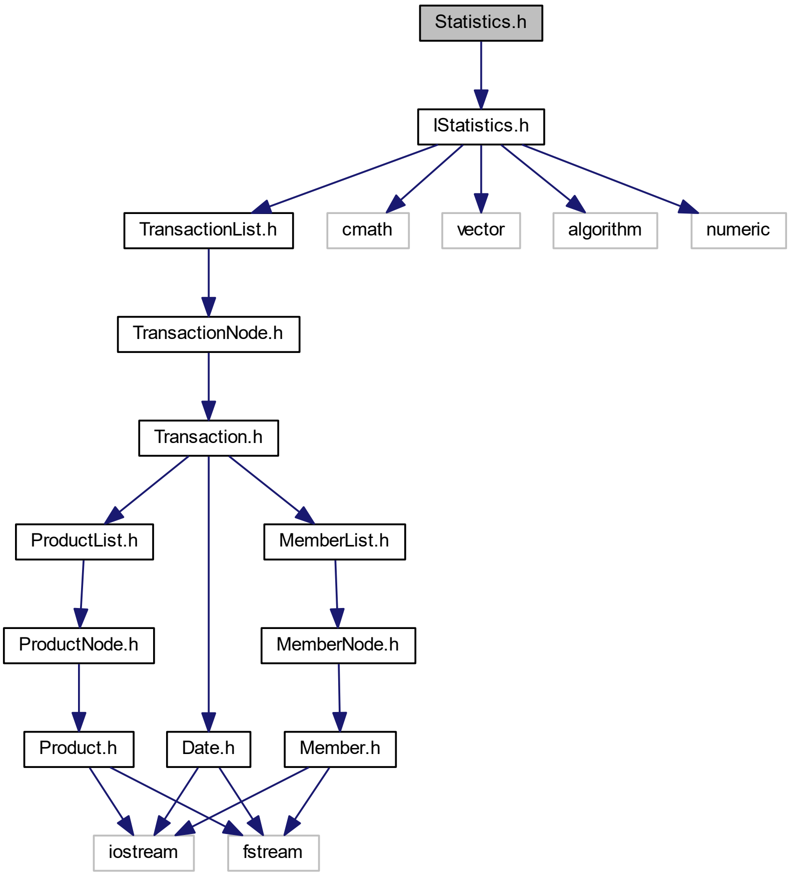
Include dependency graph for Statistics.cpp:



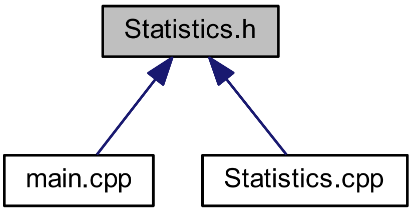
5.18 Statistics.h File Reference

```
#include "IStatistics.h"
```

Include dependency graph for Statistics.h:



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



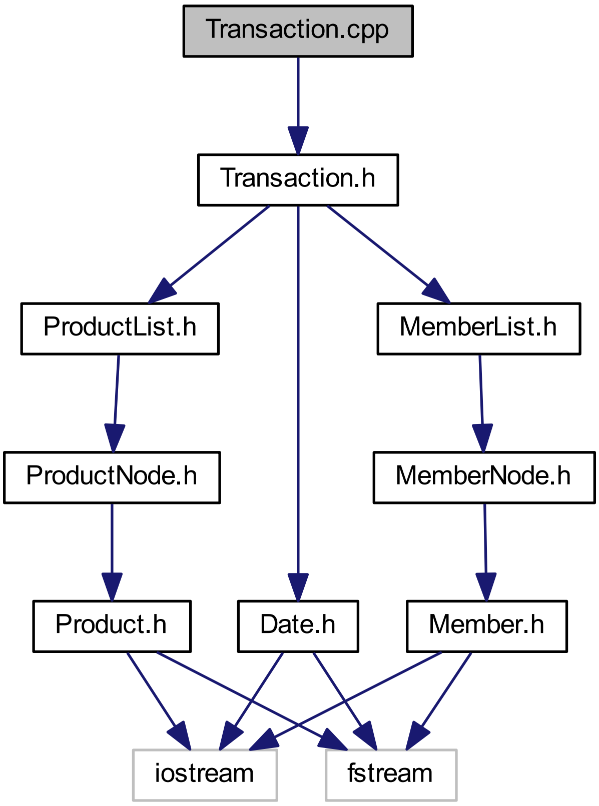
Classes

- class Statistics

5.19 Transaction.cpp File Reference

```
#include "Transaction.h"
```

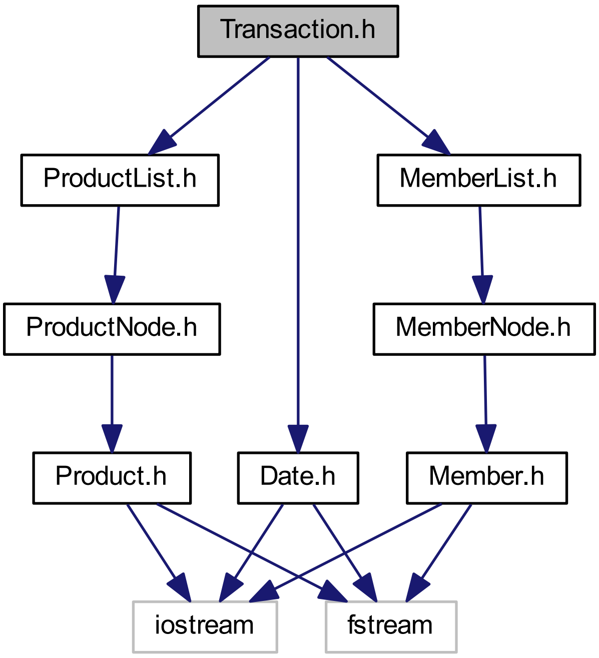
Include dependency graph for Transaction.cpp:



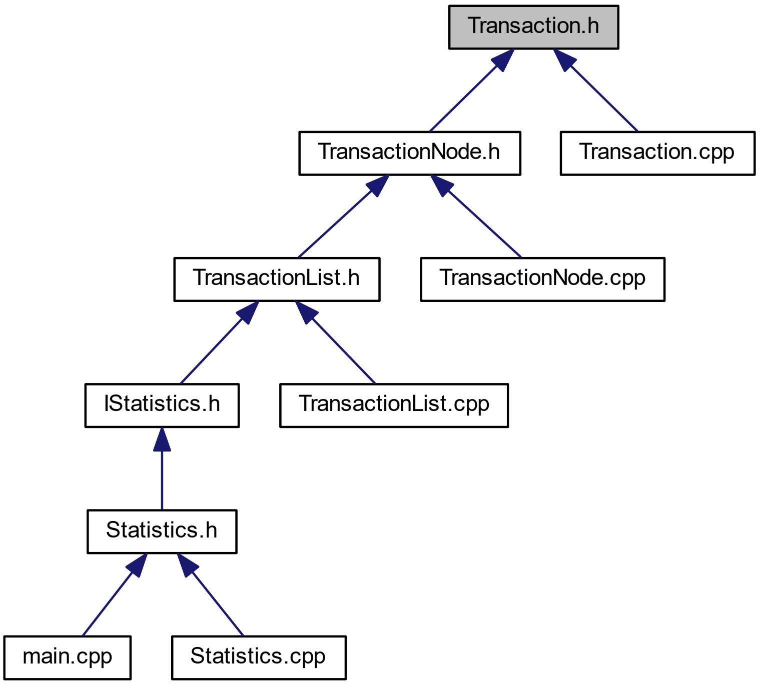
5.20 Transaction.h File Reference

```
#include "ProductList.h"
#include "Date.h"
#include "MemberList.h"
```

Include dependency graph for Transaction.h:



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



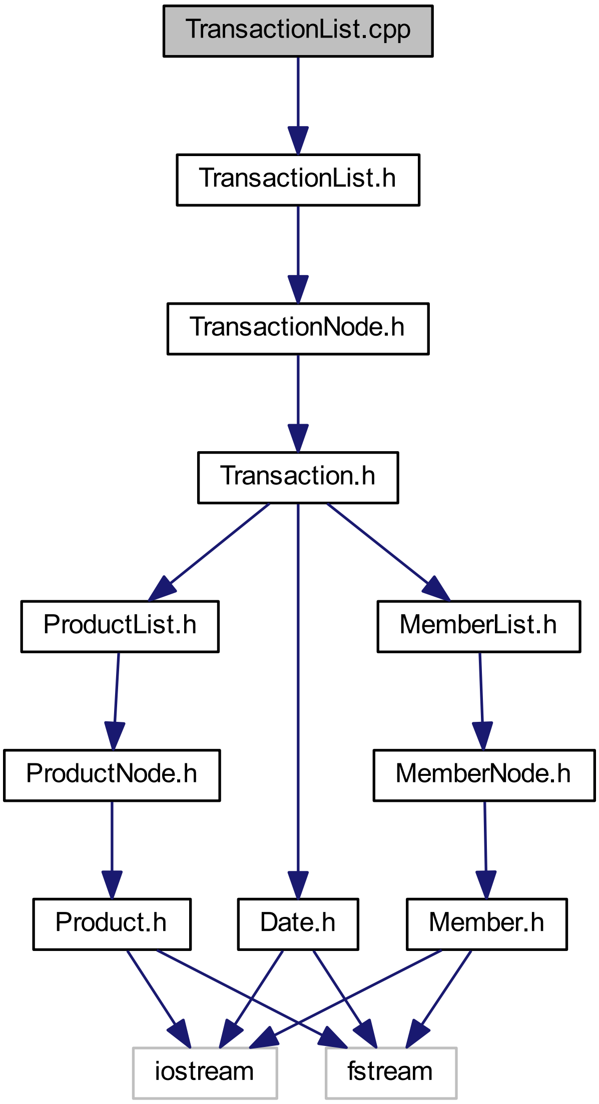
Classes

- class Transaction

5.21 TransactionList.cpp File Reference

```
#include "TransactionList.h"
```

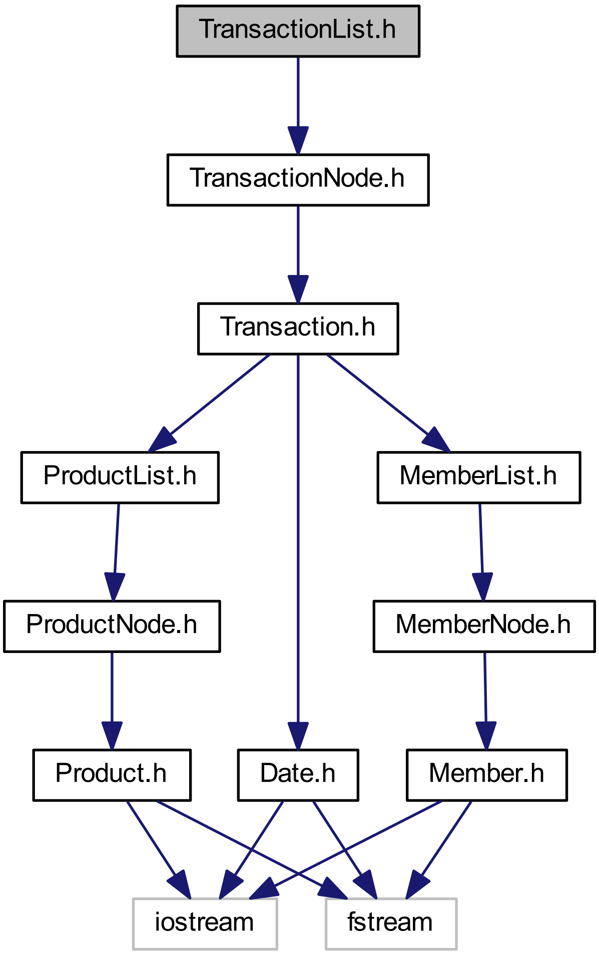
Include dependency graph for TransactionList.cpp:



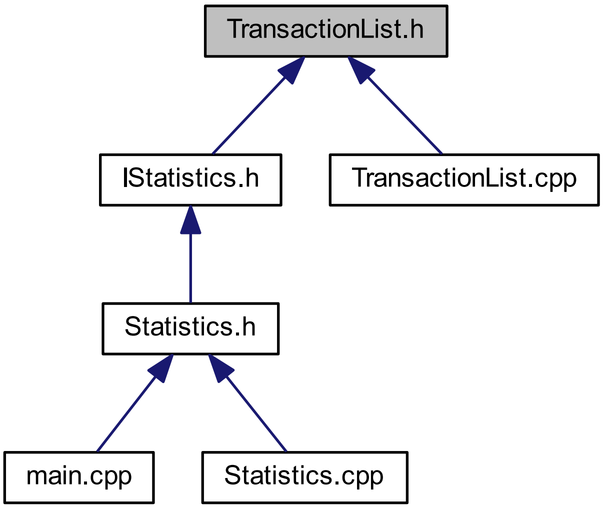
5.22 TransactionList.h File Reference

```
#include "TransactionNode.h"
```

Include dependency graph for TransactionList.h:



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



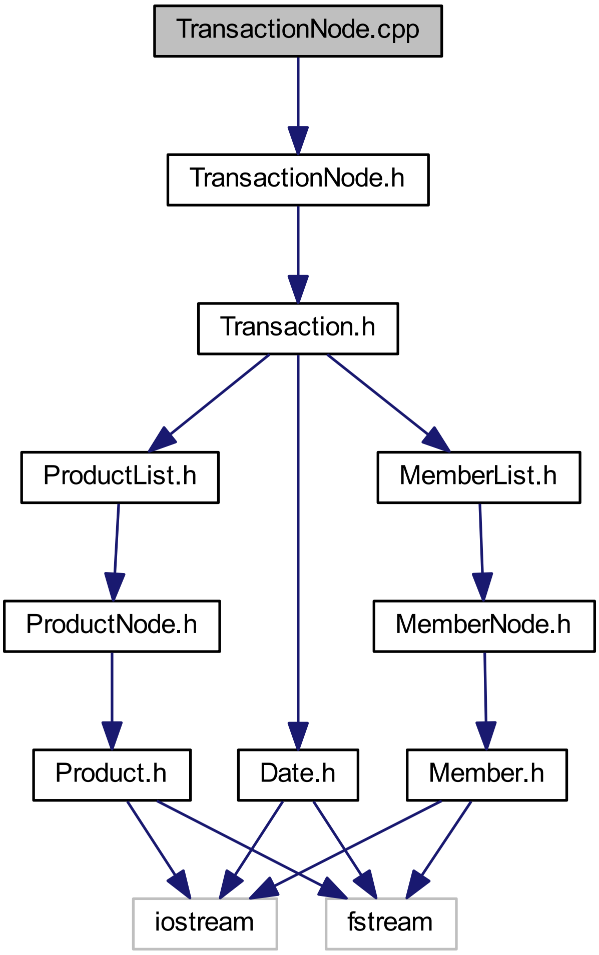
Classes

- class TransactionList

5.23 TransactionNode.cpp File Reference

```
#include "TransactionNode.h"
```

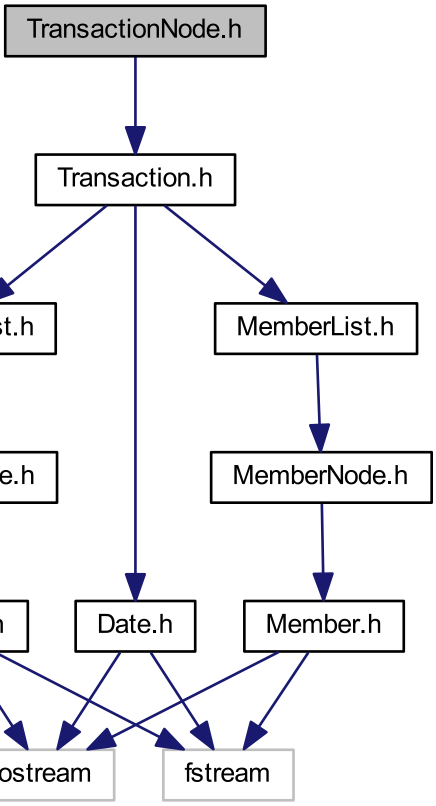
Include dependency graph for TransactionNode.cpp:



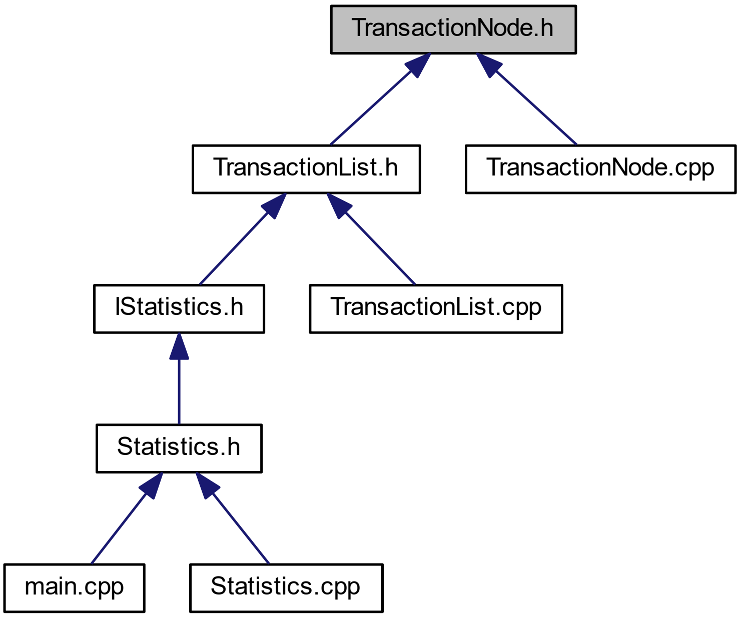
5.24 TransactionNode.h File Reference

```
#include "Transaction.h"
```

Include dependency graph for TransactionNode.h:



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



Classes

- class TransactionNode

Index