

# Crypto

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## Chapter 1

# Crypto - Advanced File Encryptor, based on one simple XOR and on a reliable AES encryption method

- [Description of the Project](#)
- [Project folders](#)
- [Main features](#)
- [Specification](#)
- [System requirements](#)
- [Compilation and installation](#)
- [Further development](#)

### Description of the Project

TODO

### Project folders

TODO

### Main features

TODO

### Specification

TODO

### System requirements

TODO

## **2 Crypto - Advanced File Encryptor, based on one simple XOR and on a reliable AES encryption method**

### **Compilation and installation**

Here is a link to the installation program for Windows XP, Vista, 7, 8, 8.1 [crypto-setup.zip](#)

### **Further development**

TODO

## Chapter 2

# Namespace Index

### 2.1 Namespace List

Here is a list of all namespaces with brief descriptions:

Ui .....	11
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## Chapter 3

# Hierarchical Index

### 3.1 Class Hierarchy

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

CtrState . . . . .	33
QDialog	
SettingsDialog . . . . .	58
QIODevice	
CryptFileDevice . . . . .	13
QMainWindow	
MainWindow . . . . .	34
Settings . . . . .	57



## Chapter 4

# Class Index

### 4.1 Class List

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

<a href="#">CryptFileDevice</a> . . . . .	13
<a href="#">CtrState</a> . . . . .	33
<a href="#">MainWindow</a>	
The <a href="#">MainWindow</a> class . . . . .	34
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## Chapter 5

# File Index

### 5.1 File List

Here is a list of all files with brief descriptions:

<a href="#">cryptfiledevice.cpp</a>	65
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## **Chapter 6**

# **Namespace Documentation**

### **6.1 Ui Namespace Reference**



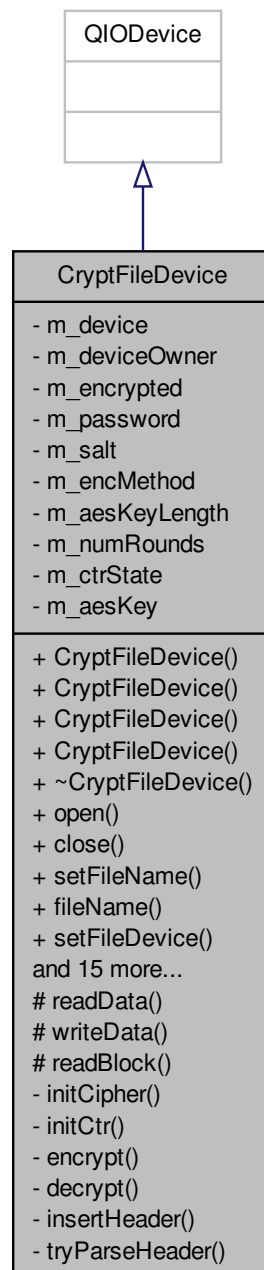
## Chapter 7

# Class Documentation

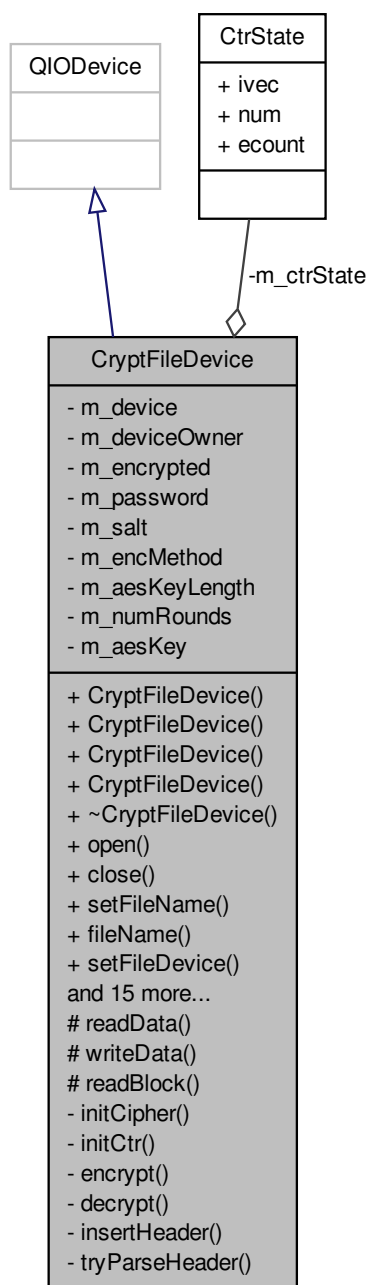
### 7.1 CryptFileDevice Class Reference

```
#include <cryptfiledevice.h>
```

Inheritance diagram for CryptFileDevice:



Collaboration diagram for CryptFileDevice:



## Public Types

- enum [AesKeyLength](#) { [kAesKeyLength128](#), [kAesKeyLength192](#), [kAesKeyLength256](#) }
- enum [EncryptionMethod](#) { [XorCipher](#), [AesCipher](#) }

## Signals

- void [errorMessage](#) (const QVariant &msg) const

## Public Member Functions

- [CryptFileDevice](#) (QObject \*parent=0)
- [CryptFileDevice](#) (QIODevice \*device, QObject \*parent=0)
- [CryptFileDevice](#) (QIODevice \*device, const QByteArray &password, const QByteArray &salt, QObject \*parent=0)
- [CryptFileDevice](#) (const QString &fileName, const QByteArray &password, const QByteArray &salt, QObject \*parent=0)
- [~CryptFileDevice](#) ()
- bool [open](#) (OpenMode flags)  
*CryptFileDevice::open.*
- void [close](#) (void)  
*CryptFileDevice::close.*
- void [setFileName](#) (const QString &fileName)  
*CryptFileDevice::setFileName.*
- QString [fileName](#) (void) const  
*CryptFileDevice::fileName.*
- void [setFileDevice](#) (QIODevice \*device)  
*CryptFileDevice::setFileDevice.*
- void [setPassword](#) (const QByteArray &password)  
*CryptFileDevice::setPassword.*
- void [setSalt](#) (const QByteArray &salt)  
*CryptFileDevice::setSalt.*
- void [setKeyLength](#) (AesKeyLength keyLength)  
*CryptFileDevice::setKeyLength.*
- void [setNumRounds](#) (int numRounds)  
*CryptFileDevice::setNumRounds.*
- void [setEncryptionMethod](#) (EncryptionMethod enc)  
*CryptFileDevice::setEncryptionMethod.*
- bool [isEncrypted](#) (void) const  
*CryptFileDevice::isEncrypted.*
- qint64 [size](#) (void) const  
*CryptFileDevice::size.*
- bool [atEnd](#) (void) const  
*CryptFileDevice::atEnd.*
- qint64 [bytesAvailable](#) (void) const  
*CryptFileDevice::bytesAvailable.*
- qint64 [pos](#) (void) const  
*CryptFileDevice::pos.*
- bool [seek](#) (qint64 pos)  
*CryptFileDevice::seek.*
- bool [flush](#) (void)  
*CryptFileDevice::flush.*
- bool [remove](#) (void)  
*CryptFileDevice::remove.*
- bool [exists](#) (void) const  
*CryptFileDevice::exists.*
- bool [rename](#) (const QString &newName)  
*CryptFileDevice::rename.*



## Protected Member Functions

- qint64 [readData](#) (char \*data, qint64 length)  
[CryptFileDevice::readData.](#)
- qint64 [writeData](#) (const char \*data, qint64 length)  
[CryptFileDevice::writeData.](#)
- qint64 [readBlock](#) (qint64 length, QByteArray &block)  
[CryptFileDevice::readBlock.](#)

## Private Member Functions

- bool [initCipher](#) (void)  
[CryptFileDevice::initCipher.](#)
- void [initCtr](#) (CtrState \*state, const unsigned char \*iv)  
[CryptFileDevice::initCtr.](#)
- char \* [encrypt](#) (const char \*plainText, qint64 length)  
[CryptFileDevice::encrypt.](#)
- char \* [decrypt](#) (const char \*cipherText, qint64 length)  
[CryptFileDevice::decrypt.](#)
- void [insertHeader](#) (void)  
[CryptFileDevice::insertHeader.](#)
- bool [tryParseHeader](#) (void)  
[CryptFileDevice::tryParseHeader.](#)

## Private Attributes

- QFileDevice \* [m\\_device](#) = nullptr
- bool [m\\_deviceOwner](#) = false
- bool [m\\_encrypted](#) = false
- QByteArray [m\\_password](#)
- QByteArray [m\\_salt](#)
- EncryptionMethod [m\\_encMethod](#)
- AesKeyLength [m\\_aesKeyLength](#) = kAesKeyLength256
- int [m\\_numRounds](#) = 5
- CtrState [m\\_ctrState](#)
- AES\_KEY [m\\_aesKey](#)

### 7.1.1 Member Enumeration Documentation

#### 7.1.1.1 enum CryptFileDevice::AesKeyLength

Enumerator

***kAesKeyLength128***  
***kAesKeyLength192***  
***kAesKeyLength256***

#### 7.1.1.2 enum CryptFileDevice::EncryptionMethod

Enumerator

***XorCipher***  
***AesCipher***

## 7.1.2 Constructor & Destructor Documentation

7.1.2.1 `CryptFileDevice::CryptFileDevice ( QObject * parent = 0 )` `[explicit]`

7.1.2.2 `CryptFileDevice::CryptFileDevice ( QFileDevice * device, QObject * parent = 0 )` `[explicit]`

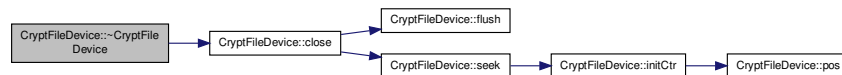
7.1.2.3 `CryptFileDevice::CryptFileDevice ( QFileDevice * device, const QByteArray & password, const QByteArray & salt, QObject * parent = 0 )` `[explicit]`

7.1.2.4 `CryptFileDevice::CryptFileDevice ( const QString & fileName, const QByteArray & password, const QByteArray & salt, QObject * parent = 0 )` `[explicit]`

7.1.2.5 `CryptFileDevice::~CryptFileDevice ( )`

References `close()`, `m_device`, and `m_deviceOwner`.

Here is the call graph for this function:



## 7.1.3 Member Function Documentation

7.1.3.1 `bool CryptFileDevice::atEnd ( void ) const`

[CryptFileDevice::atEnd](#).

Returns

7.1.3.2 `qint64 CryptFileDevice::bytesAvailable ( void ) const`

[CryptFileDevice::bytesAvailable](#).

Returns

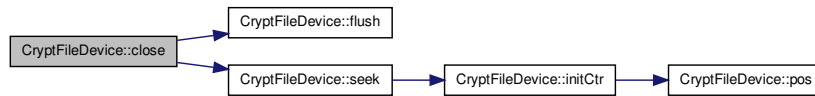
7.1.3.3 `void CryptFileDevice::close ( void )`

[CryptFileDevice::close](#).

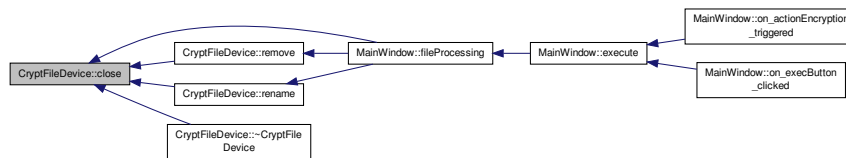
References `flush()`, `m_device`, `m_encrypted`, and `seek()`.

Referenced by `MainWindow::fileProcessing()`, `remove()`, `rename()`, and `~CryptFileDevice()`.

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.1.3.4 char \* CryptFileDevice::decrypt ( const char \* *cipherText*, qint64 *len* ) [private]

[CryptFileDevice::decrypt](#).

##### Parameters

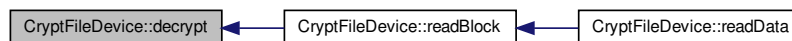
<i>cipherText</i>	
<i>len</i>	

##### Returns

References CtrState::ecount, CtrState::ivec, m\_aesKey, m\_ctrState, and CtrState::num.

Referenced by readBlock().

Here is the caller graph for this function:



#### 7.1.3.5 char \* CryptFileDevice::encrypt ( const char \* *plainText*, qint64 *length* ) [private]

[CryptFileDevice::encrypt](#).

## Parameters

<i>plainText</i>	
<i>length</i>	

## Returns

References `AesCipher`, `CtrState::ecount`, `errorMessage()`, `CtrState::ivec`, `m_aesKey`, `m_ctrState`, `m_encMethod`, `m_password`, `CtrState::num`, and `XorCipher`.

Referenced by `writeData()`.

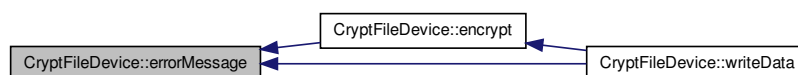
Here is the caller graph for this function:



#### 7.1.3.6 void CryptFileDevice::errorMessage ( const QVariant & msg ) const [signal]

Referenced by `encrypt()`, and `writeData()`.

Here is the caller graph for this function:



#### 7.1.3.7 bool CryptFileDevice::exists ( void ) const

[CryptFileDevice::exists](#).

## Returns

References `fileName()`, and `m_device`.

Here is the call graph for this function:



## 7.1.3.8 QString CryptFileDevice::fileName ( void ) const

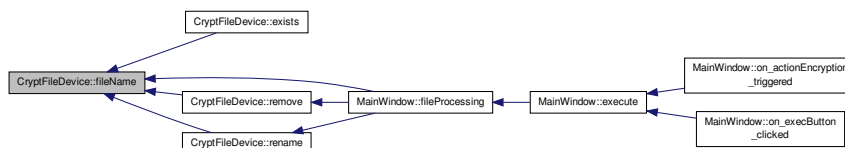
[CryptFileDevice::fileName](#).

## Returns

References `m_device`.

Referenced by `exists()`, `MainWindow::fileProcessing()`, `remove()`, and `rename()`.

Here is the caller graph for this function:



## 7.1.3.9 bool CryptFileDevice::flush ( void )

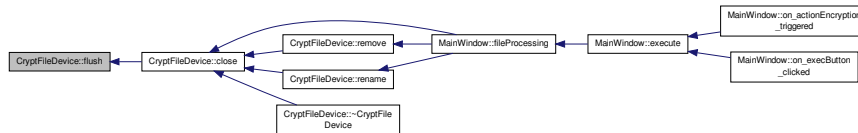
[CryptFileDevice::flush](#).

## Returns

References `m_device`.

Referenced by `close()`.

Here is the caller graph for this function:



### 7.1.3.10 `bool CryptFileDevice::initCipher ( void )` [private]

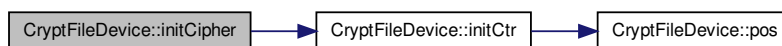
[CryptFileDevice::initCipher](#).

## Returns

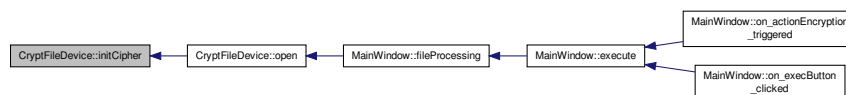
References `initCtr()`, `kAesKeyLength128`, `kAesKeyLength192`, `kAesKeyLength256`, `m_aesKey`, `m_aesKeyLength`, `m_ctrState`, `m_numRounds`, `m_password`, and `m_salt`.

Referenced by `open()`.

Here is the call graph for this function:



Here is the caller graph for this function:



### 7.1.3.11 `void CryptFileDevice::initCtr ( CtrState * state, const unsigned char * iv )` [private]

[CryptFileDevice::initCtr](#).

## Parameters

<i>state</i>	
<i>iv</i>	

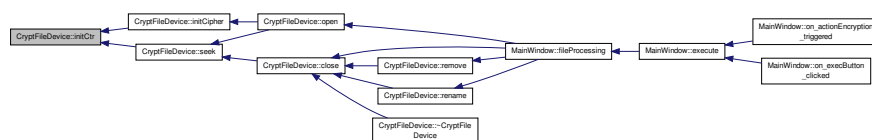
References CtrState::ecount, CtrState::ivec, m\_aesKey, CtrState::num, and pos().

Referenced by initCipher(), and seek().

Here is the call graph for this function:



Here is the caller graph for this function:



### 7.1.3.12 void CryptFileDevice::insertHeader ( void ) [private]

[CryptFileDevice::insertHeader.](#)

References kHeaderLength, m\_aesKeyLength, m\_device, m\_numRounds, m\_password, and m\_salt.

### 7.1.3.13 bool CryptFileDevice::isEncrypted ( void ) const

[CryptFileDevice::isEncrypted.](#)

#### Returns

References m\_encrypted.

### 7.1.3.14 bool CryptFileDevice::open ( OpenMode mode )

[CryptFileDevice::open.](#)

#### Parameters

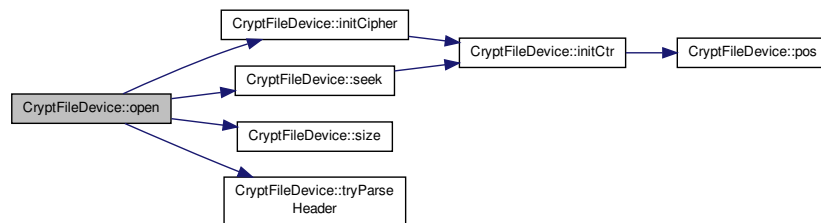
<i>mode</i>	
-------------	--

## Returns

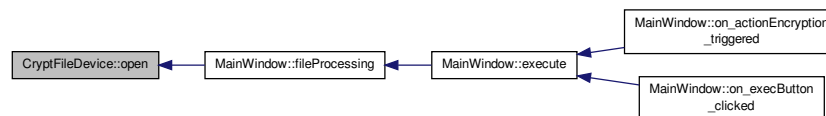
References `AesCipher`, `initCipher()`, `kHeaderLength`, `m_device`, `m_encMethod`, `m_encrypted`, `m_password`, `seek()`, `size()`, and `tryParseHeader()`.

Referenced by `MainWindow::fileProcessing()`.

Here is the call graph for this function:



Here is the caller graph for this function:



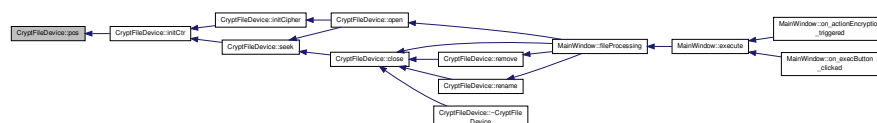
### 7.1.3.15 qint64 CryptFileDevice::pos ( void ) const

[CryptFileDevice::pos](#).

## Returns

Referenced by `initCtr()`.

Here is the caller graph for this function:





7.1.3.16 `qint64 CryptFileDevice::readBlock ( qint64 len, QByteArray & block )` [protected]

[CryptFileDevice::readBlock.](#)

## Parameters

<i>len</i>	
<i>block</i>	

## Returns

References decrypt(), and m\_device.

Referenced by readData().

Here is the call graph for this function:



Here is the caller graph for this function:



7.1.3.17 `qint64 CryptFileDevice::readData ( char * data, qint64 len )` [protected]

[CryptFileDevice::readData](#).

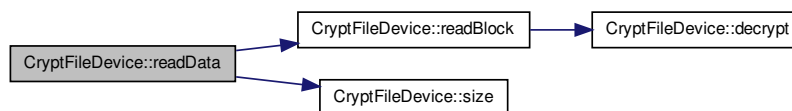
## Parameters

<i>data</i>	
<i>len</i>	

## Returns

References `m_device`, `m_encrypted`, `readBlock()`, and `size()`.

Here is the call graph for this function:

7.1.3.18 `bool CryptFileDevice::remove ( void )`

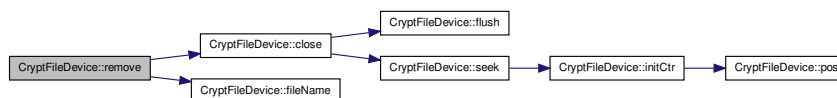
[CryptFileDevice::remove](#).

## Returns

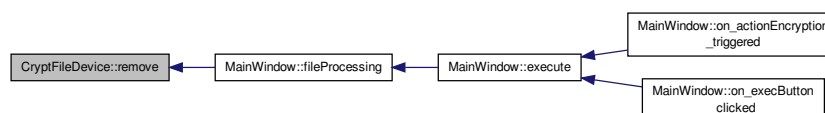
References `close()`, `fileName()`, and `m_device`.

Referenced by `MainWindow::fileProcessing()`.

Here is the call graph for this function:



Here is the caller graph for this function:

7.1.3.19 `bool CryptFileDevice::rename ( const QString & newName )`

[CryptFileDevice::rename](#).

## Parameters

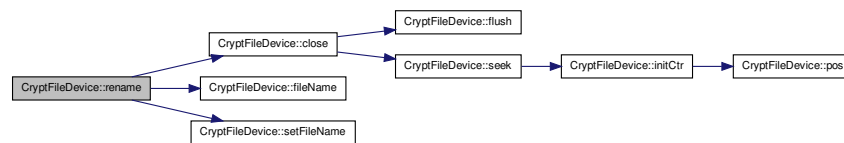
<i>newName</i>	
----------------	--

## Returns

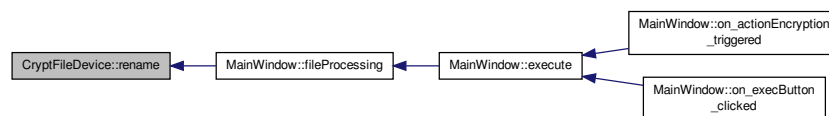
References `close()`, `fileName()`, `m_device`, and `setFileName()`.

Referenced by `MainWindow::fileProcessing()`.

Here is the call graph for this function:



Here is the caller graph for this function:



### 7.1.3.20 bool CryptFileDevice::seek ( qint64 pos )

[CryptFileDevice::seek.](#)

## Parameters

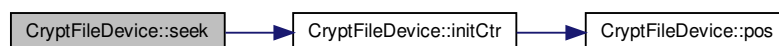
<i>pos</i>	
------------	--

## Returns

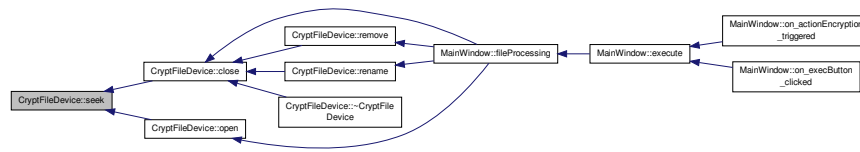
References `initCtr()`, `CtrState::ivec`, `kHeaderLength`, `m_ctrState`, `m_device`, and `m_encrypted`.

Referenced by `close()`, and `open()`.

Here is the call graph for this function:



Here is the caller graph for this function:



### 7.1.3.21 void CryptFileDevice::setEncryptionMethod ( CryptFileDevice::EncryptionMethod *enc* )

[CryptFileDevice::setEncryptionMethod.](#)

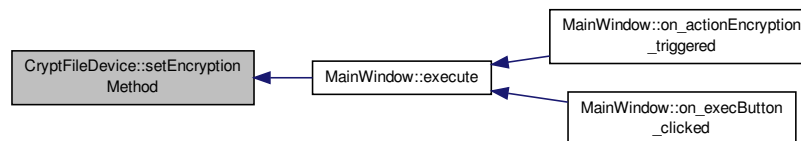
Parameters

<i>enc</i>	
------------	--

References `m_encMethod`.

Referenced by `MainWindow::execute()`.

Here is the caller graph for this function:



### 7.1.3.22 void CryptFileDevice::setFileDevice ( QFileDevice \* *device* )

[CryptFileDevice::setFileDevice.](#)

Parameters

<i>device</i>	
---------------	--

References `m_device`, and `m_deviceOwner`.

### 7.1.3.23 void CryptFileDevice::setFileName ( const QString & *fileName* )

[CryptFileDevice::setFileName.](#)

Parameters

<i>fileName</i>	
-----------------	--

References `m_device`, and `m_deviceOwner`.

Referenced by `MainWindow::fileProcessing()`, and `rename()`.

Here is the caller graph for this function:



#### 7.1.3.24 void CryptFileDevice::setKeyLength ( *AesKeyLength keyLength* )

[CryptFileDevice::setKeyLength.](#)

Parameters

<i>keyLength</i>	
------------------	--

References `m_aesKeyLength`.

#### 7.1.3.25 void CryptFileDevice::setNumRounds ( *int numRounds* )

[CryptFileDevice::setNumRounds.](#)

Parameters

<i>numRounds</i>	
------------------	--

References `m_numRounds`.

#### 7.1.3.26 void CryptFileDevice::setPassword ( *const QByteArray & password* )

[CryptFileDevice::setPassword.](#)

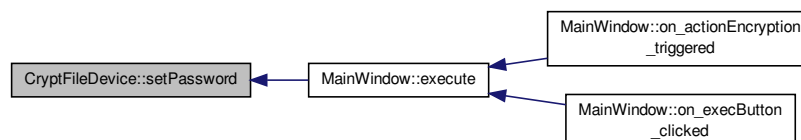
Parameters

<i>password</i>	
-----------------	--

References `m_password`.

Referenced by `MainWindow::execute()`.

Here is the caller graph for this function:



#### 7.1.3.27 void CryptFileDevice::setSalt ( *const QByteArray & salt* )

[CryptFileDevice::setSalt.](#)

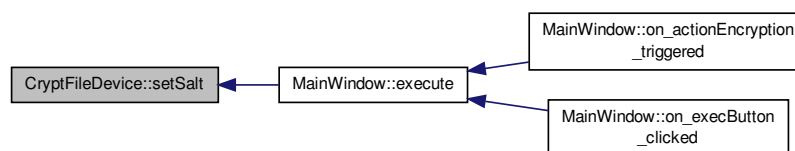
## Parameters

<i>salt</i>	
-------------	--

References `kSaltMaxLength`, and `m_salt`.

Referenced by `MainWindow::execute()`.

Here is the caller graph for this function:



## 7.1.3.28 qint64 CryptFileDevice::size ( void ) const

[CryptFileDevice::size](#).

## Returns

References `kHeaderLength`, `m_device`, and `m_encrypted`.

Referenced by `open()`, and `readData()`.

Here is the caller graph for this function:



## 7.1.3.29 bool CryptFileDevice::tryParseHeader ( void ) [private]

[CryptFileDevice::tryParseHeader](#).

## Returns

References kHeaderLength, m\_aesKeyLength, m\_device, m\_numRounds, m\_password, and m\_salt.

Referenced by open().

Here is the caller graph for this function:



### 7.1.3.30 qint64 CryptFileDevice::writeData ( const char \* *data*, qint64 *length* ) [protected]

[CryptFileDevice::writeData](#).

## Parameters

<i>data</i>	
<i>length</i>	

## Returns

References encrypt(), errorMessage(), m\_device, and m\_encrypted.

Here is the call graph for this function:



## 7.1.4 Member Data Documentation

### 7.1.4.1 AES\_KEY CryptFileDevice::m\_aesKey [private]

Referenced by decrypt(), encrypt(), initCipher(), and initCtr().

### 7.1.4.2 AesKeyLength CryptFileDevice::m\_aesKeyLength = kAesKeyLength256 [private]

Referenced by initCipher(), insertHeader(), setKeyLength(), and tryParseHeader().

### 7.1.4.3 CtrState CryptFileDevice::m\_ctrState [private]

Referenced by decrypt(), encrypt(), initCipher(), and seek().



**7.1.4.4** `QIODevice* CryptFileDevice::m_device = nullptr` [private]

Referenced by `close()`, `exists()`, `fileName()`, `flush()`, `insertHeader()`, `open()`, `readBlock()`, `readData()`, `remove()`, `rename()`, `seek()`, `setFileDevice()`, `setFileName()`, `size()`, `tryParseHeader()`, `writeData()`, and `~CryptFileDevice()`.

**7.1.4.5** `bool CryptFileDevice::m_deviceOwner = false` [private]

Referenced by `setFileDevice()`, `setFileName()`, and `~CryptFileDevice()`.

**7.1.4.6** `EncryptionMethod CryptFileDevice::m_encMethod` [private]

Referenced by `encrypt()`, `open()`, and `setEncryptionMethod()`.

**7.1.4.7** `bool CryptFileDevice::m_encrypted = false` [private]

Referenced by `close()`, `isEncrypted()`, `open()`, `readData()`, `seek()`, `size()`, and `writeData()`.

**7.1.4.8** `int CryptFileDevice::m_numRounds = 5` [private]

Referenced by `initCipher()`, `insertHeader()`, `setNumRounds()`, and `tryParseHeader()`.

**7.1.4.9** `QByteArray CryptFileDevice::m_password` [private]

Referenced by `encrypt()`, `initCipher()`, `insertHeader()`, `open()`, `setPassword()`, and `tryParseHeader()`.

**7.1.4.10** `QByteArray CryptFileDevice::m_salt` [private]

Referenced by `initCipher()`, `insertHeader()`, `setSalt()`, and `tryParseHeader()`.

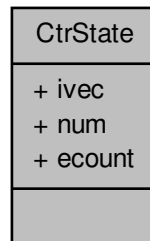
The documentation for this class was generated from the following files:

- [cryptfiledevice.h](#)
- [cryptfiledevice.cpp](#)

## 7.2 CtrState Struct Reference

```
#include <cryptfiledevice.h>
```

Collaboration diagram for CtrState:



## Public Attributes

- unsigned char [ivec](#) [AES\_BLOCK\_SIZE]
- unsigned int [num](#)
- unsigned char [ecoun](#) [AES\_BLOCK\_SIZE]

### 7.2.1 Member Data Documentation

#### 7.2.1.1 unsigned char CtrState::ecoun[AES\_BLOCK\_SIZE]

Referenced by `CryptFileDevice::decrypt()`, `CryptFileDevice::encrypt()`, and `CryptFileDevice::initCtr()`.

#### 7.2.1.2 unsigned char CtrState::ivec[AES\_BLOCK\_SIZE]

Referenced by `CryptFileDevice::decrypt()`, `CryptFileDevice::encrypt()`, `CryptFileDevice::initCtr()`, and `CryptFileDevice::seek()`.

#### 7.2.1.3 unsigned int CtrState::num

Referenced by `CryptFileDevice::decrypt()`, `CryptFileDevice::encrypt()`, and `CryptFileDevice::initCtr()`.

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

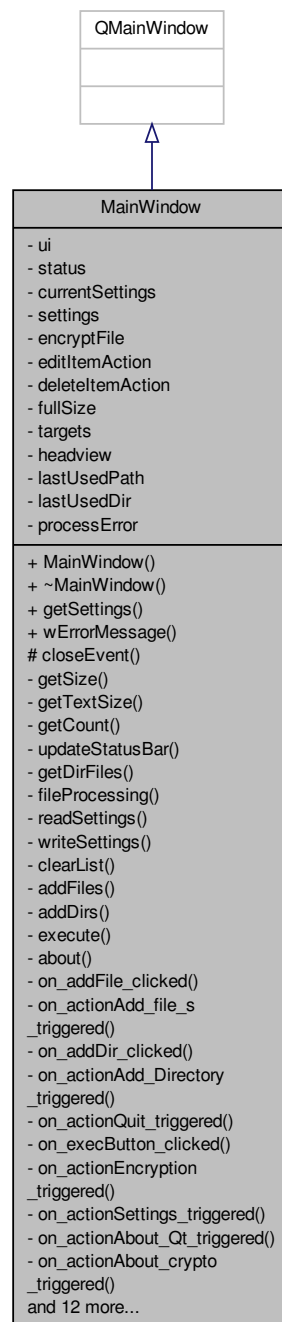
- [cryptfiledevice.h](#)

## 7.3 MainWindow Class Reference

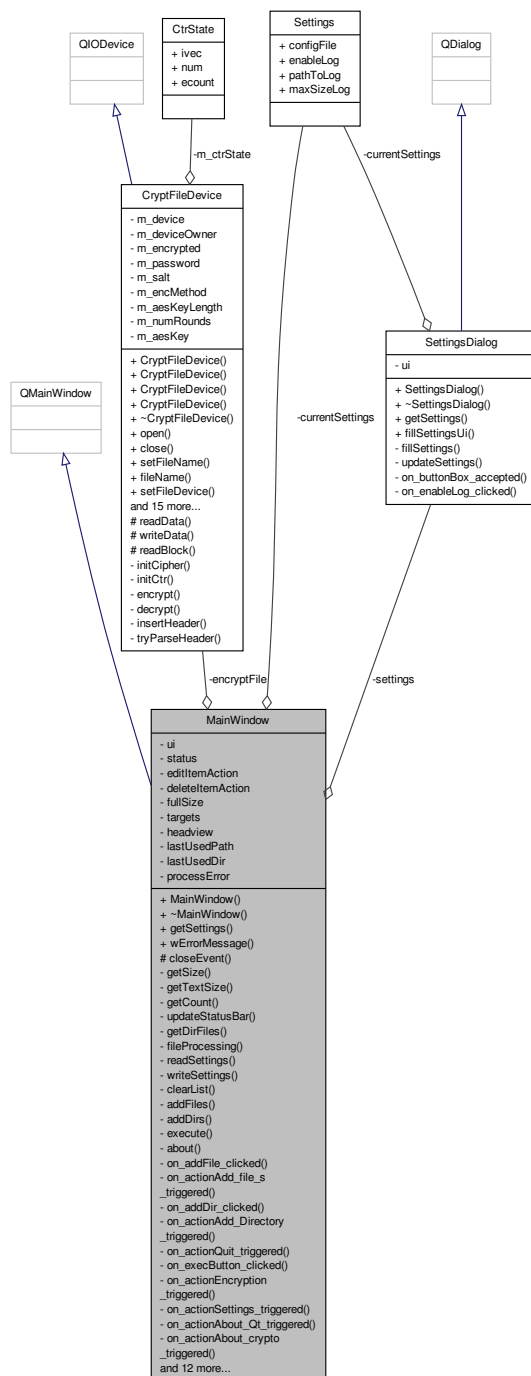
The [MainWindow](#) class.

```
#include <mainwindow.h>
```

Inheritance diagram for MainWindow:



Collaboration diagram for MainWindow:



## Public Types

- enum [DataType](#) { [File](#), [Dir](#) }

## Public Slots

- void [wErrorMessage](#) (const QVariant &message)

*MainWindow::wErrorMessage.*

## Public Member Functions

- [MainWindow](#) (QWidget \*parent=0)  
*MainWindow::MainWindow.*
- [~MainWindow](#) ()  
*MainWindow::~~MainWindow.*
- [Settings \\* getSettings](#) (void) const  
*MainWindow::getSettings.*

## Protected Member Functions

- void [closeEvent](#) (QCloseEvent \*event) Q\_DECL\_OVERRIDE  
*MainWindow::closeEvent.*

## Private Slots

- void [on\\_addFile\\_clicked](#) (void)  
*MainWindow::on\_addFile\_clicked.*
- void [on\\_actionAdd\\_file\\_s\\_triggered](#) (void)  
*MainWindow::on\_actionAdd\_file\_s\_triggered.*
- void [on\\_addDir\\_clicked](#) (void)  
*MainWindow::on\_addDir\_clicked.*
- void [on\\_actionAdd\\_Directory\\_triggered](#) (void)  
*MainWindow::on\_actionAdd\_Directory\_triggered.*
- void [on\\_actionQuit\\_triggered](#) (void)  
*MainWindow::on\_actionQuit\_triggered.*
- void [on\\_execButton\\_clicked](#) (void)  
*MainWindow::on\_execButton\_clicked.*
- void [on\\_actionEncryption\\_triggered](#) (void)  
*MainWindow::on\_actionEncryption\_triggered.*
- void [on\\_actionSettings\\_triggered](#) (void)  
*MainWindow::on\_actionSettings\_triggered.*
- void [on\\_actionAbout\\_Qt\\_triggered](#) (void)  
*MainWindow::on\_actionAbout\_Qt\_triggered.*
- void [on\\_actionAbout\\_crypto\\_triggered](#) (void)  
*MainWindow::on\_actionAbout\_crypto\_triggered.*
- void [editItem](#) (void)  
*MainWindow::editItem.*
- void [on\\_editEntry\\_clicked](#) (void)  
*MainWindow::on\_editEntry\_clicked.*
- void [deleteItem](#) (void)  
*MainWindow::deleteItem.*
- void [on\\_deleteEntry\\_clicked](#) (void)  
*MainWindow::on\_deleteEntry\_clicked.*
- void [on\\_actionContents\\_triggered](#) (void)  
*MainWindow::on\_actionContents\_triggered.*
- void [on\\_targetsList\\_currentCellChanged](#) (int, int, int, int)  
*MainWindow::on\_targetsList\_currentCellChanged.*

- void [on\\_hidPassMode\\_clicked](#) (bool checked)  
*MainWindow::on\_hidPassMode\_clicked.*
- void [on\\_passLine\\_textChanged](#) (const QString &arg)  
*MainWindow::on\_passLine\_textChanged.*
- void [on\\_passConfirmLine\\_textChanged](#) (const QString &arg)  
*MainWindow::on\_passConfirmLine\_textChanged.*
- void [on\\_clearList\\_clicked](#) (void)  
*MainWindow::on\_clearList\_clicked.*
- void [on\\_recurseDirs\\_clicked](#) (void)  
*MainWindow::on\_recurseDirs\_clicked.*
- void [on\\_actionFont\\_triggered](#) (void)  
*MainWindow::on\_actionFont\_triggered.*

### Private Member Functions

- qint64 [getSize](#) (const QString &obj, [DataType](#) type) const  
*MainWindow::getSize.*
- QString [getTextSize](#) (const qint64 size) const  
*MainWindow::getTextSize.*
- qint64 [getCount](#) (void) const  
*MainWindow::getCount.*
- void [updateStatusBar](#) (void) const  
*MainWindow::updateStatusBar.*
- QStringList [getDirFiles](#) (const QString &dirPath) const  
*MainWindow::getDirFiles.*
- [ProcessStatus](#) [fileProcessing](#) (const QString &file)  
*MainWindow::fileProcessing.*
- void [readSettings](#) (void)  
*MainWindow::readSettings.*
- void [writeSettings](#) (void) const  
*MainWindow::writeSettings.*
- void [clearList](#) (void) const  
*MainWindow::clearList.*
- void [addFiles](#) (void)  
*MainWindow::addFiles.*
- void [addDirs](#) (void)  
*MainWindow::addDirs.*
- void [execute](#) (void)  
*MainWindow::execute.*
- void [about](#) (void)  
*MainWindow::about.*

### Private Attributes

- Ui::MainWindow \* [ui](#)
- QLabel \* [status](#)
- [Settings](#) \* [currentSettings](#)
- [SettingsDialog](#) \* [settings](#)
- [CryptFileDevice](#) \* [encryptFile](#)
- QAction \* [editItemAction](#)
- QAction \* [deleteItemAction](#)

- qint64 [fullSize](#)
- QList< QPair< [DataType](#), qint64 > > [targets](#)
- QHeaderView \* [headview](#)
- QString [lastUsedPath](#)
- QString [lastUsedDir](#)
- bool [processError](#)

### 7.3.1 Detailed Description

The [MainWindow](#) class.

### 7.3.2 Member Enumeration Documentation

#### 7.3.2.1 enum MainWindow::DataType

Enumerator

***File***

***Dir***

### 7.3.3 Constructor & Destructor Documentation

#### 7.3.3.1 MainWindow::MainWindow ( QWidget \* *parent* = 0 ) [explicit]

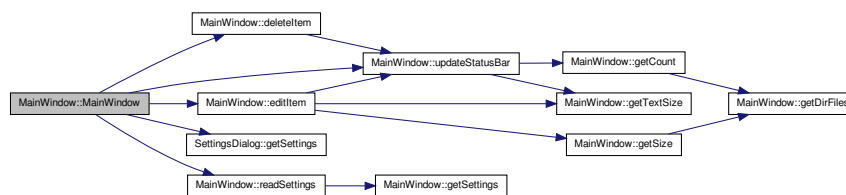
[MainWindow::MainWindow](#).

Parameters

<i>parent</i>	
---------------	--

References [currentSettings](#), [deleteItem\(\)](#), [deleteItemAction](#), [editItem\(\)](#), [editItemAction](#), [SettingsDialog::getSettings\(\)](#), [headview](#), [readSettings\(\)](#), [settings](#), [status](#), [ui](#), and [updateStatusBar\(\)](#).

Here is the call graph for this function:



#### 7.3.3.2 MainWindow::~~MainWindow ( )

[MainWindow::~~MainWindow](#).

References [ui](#).

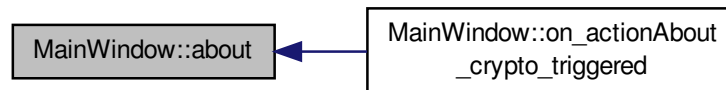
### 7.3.4 Member Function Documentation

#### 7.3.4.1 void MainWindow::about ( void ) [private]

[MainWindow::about.](#)

Referenced by on\_actionAbout\_crypto\_triggered().

Here is the caller graph for this function:



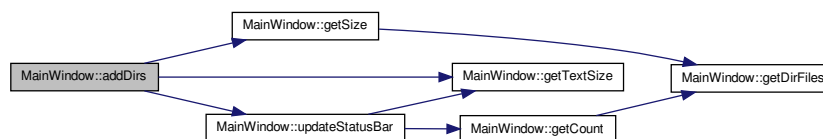
#### 7.3.4.2 void MainWindow::addDirs ( void ) [private]

[MainWindow::addDirs.](#)

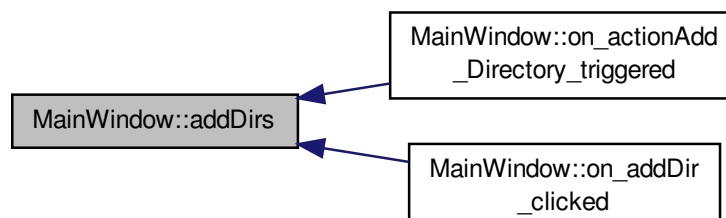
References Dir, fullSize, getSize(), getTextSize(), headview, lastUsedDir, targets, ui, and updateStatusBar().

Referenced by on\_actionAdd\_Directory\_triggered(), and on\_addDir\_clicked().

Here is the call graph for this function:



Here is the caller graph for this function:





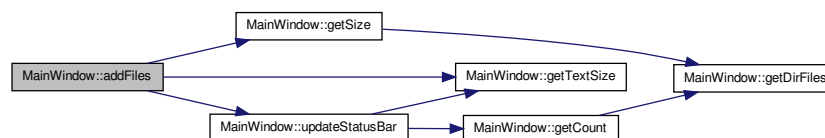
#### 7.3.4.3 void MainWindow::addFiles ( void ) [private]

##### [MainWindow::addFiles.](#)

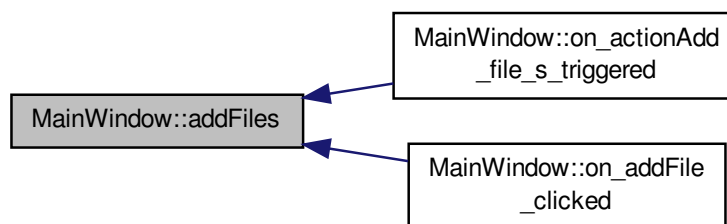
References File, fullSize, getSize(), getTextSize(), headview, lastUsedPath, targets, ui, and updateStatusBar().

Referenced by on\_actionAdd\_file\_s\_triggered(), and on\_addFile\_clicked().

Here is the call graph for this function:



Here is the caller graph for this function:



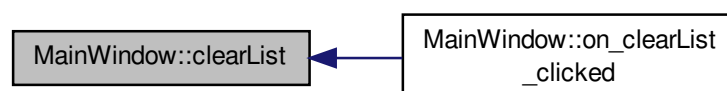
#### 7.3.4.4 void MainWindow::clearList ( void ) const [private]

##### [MainWindow::clearList.](#)

References ui.

Referenced by on\_clearList\_clicked().

Here is the caller graph for this function:



7.3.4.5 void MainWindow::closeEvent ( QCloseEvent \* *event* ) [protected]

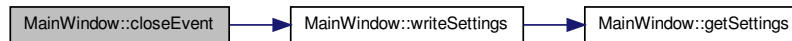
[MainWindow::closeEvent.](#)

## Parameters

<i>event</i>	
--------------	--

References writeSettings().

Here is the call graph for this function:



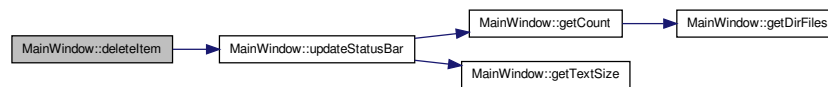
#### 7.3.4.6 void MainWindow::deleteItem ( void ) [private],[slot]

[MainWindow::deleteItem.](#)

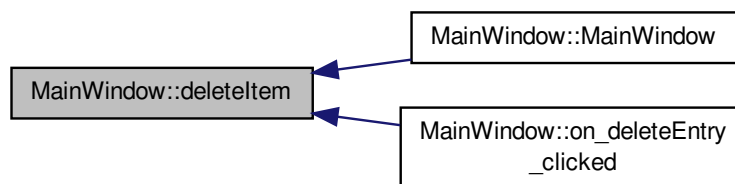
References fullSize, targets, ui, and updateStatusBar().

Referenced by MainWindow(), and on\_deleteEntry\_clicked().

Here is the call graph for this function:



Here is the caller graph for this function:



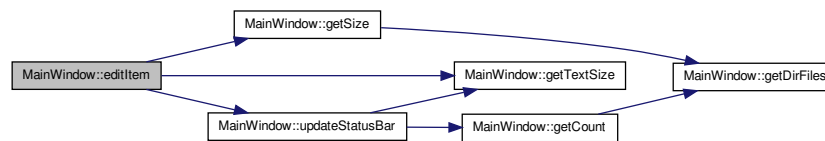
#### 7.3.4.7 void MainWindow::editItem ( void ) [private],[slot]

[MainWindow::editItem.](#)

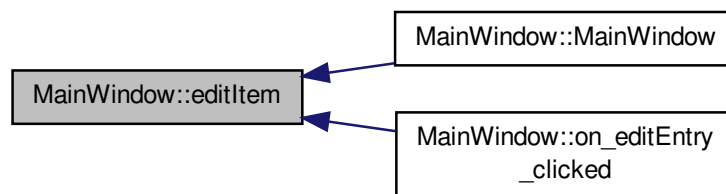
References Dir, File, fullSize, getSize(), getTextSize(), headview, lastUsedDir, lastUsedPath, targets, ui, and updateStatusBar().

Referenced by MainWindow(), and on\_editEntry\_clicked().

Here is the call graph for this function:



Here is the caller graph for this function:



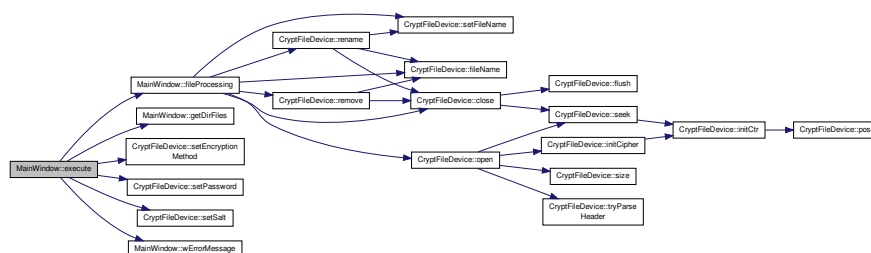
#### 7.3.4.8 void MainWindow::execute ( void ) [private]

##### MainWindow::execute.

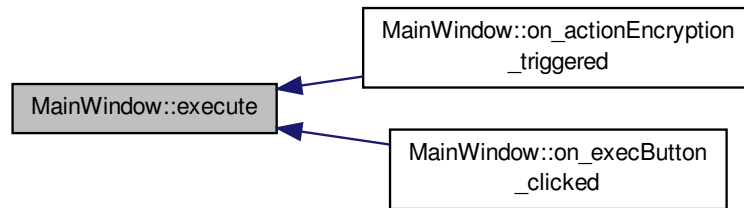
References `CryptFileDevice::AesCipher`, `COEFF`, `Dir`, `encryptFile`, `File`, `fileProcessing()`, `fullSize`, `getDirFiles()`, `ONEKB`, `PROCESS_STATUS_BREAK`, `PROCESS_STATUS_CONTINUE`, `PROCESS_STATUS_STATE_ERROR`, `PROCESS_STATUS_SUCCESS`, `processError`, `CryptFileDevice::setEncryptionMethod()`, `CryptFileDevice::setPassword()`, `CryptFileDevice::setSalt()`, `targets`, `ui`, `wErrorMessage()`, and `CryptFileDevice::XorCipher`.

Referenced by `on_actionEncryption_triggered()`, and `on_execButton_clicked()`.

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.3.4.9 ProcessStatus MainWindow::fileProcessing ( const QString & f ) [private]

[MainWindow::fileProcessing.](#)

Parameters

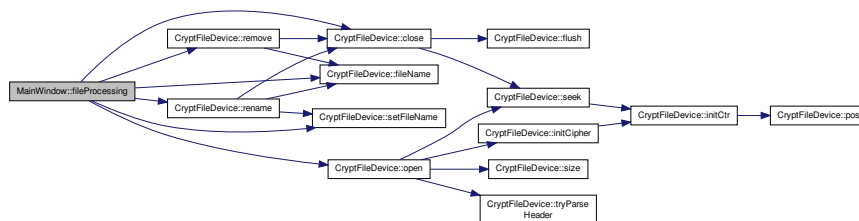
<i>f</i>	
----------	--

Returns

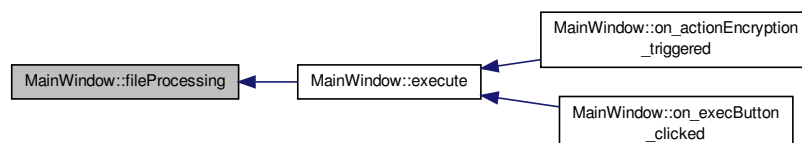
References `CryptFileDevice::close()`, `COEFF`, `encryptFile`, `CryptFileDevice::fileName()`, `CryptFileDevice::open()`, `PROCESS_STATUS_BREAK`, `PROCESS_STATUS_CONTINUE`, `PROCESS_STATUS_SUCCESS`, `processError`, `CryptFileDevice::remove()`, `CryptFileDevice::rename()`, `CryptFileDevice::setFileName()`, and `ui`.

Referenced by `execute()`.

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.3.4.10 qint64 MainWindow::getCount ( void ) const [private]

[MainWindow::getCount.](#)

##### Returns

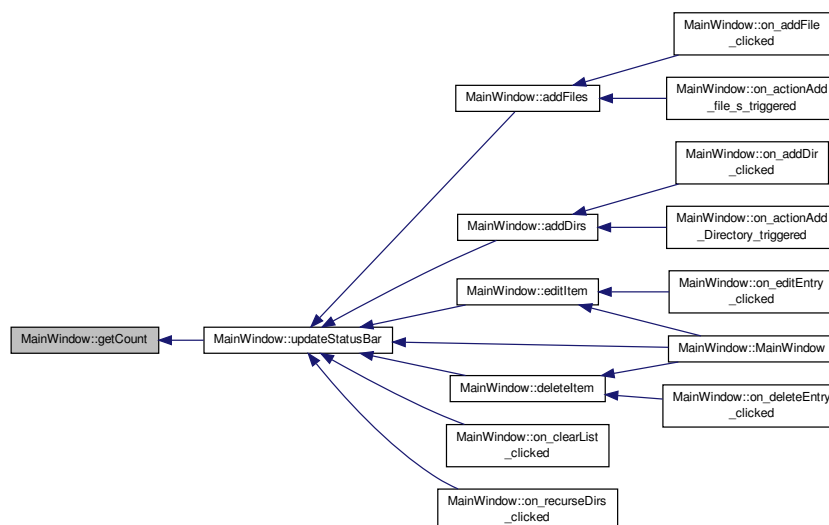
References Dir, File, getDirFiles(), targets, and ui.

Referenced by updateStatusBar().

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.3.4.11 QStringList MainWindow::getDirFiles ( const QString & dirPath ) const [private]

[MainWindow::getDirFiles.](#)

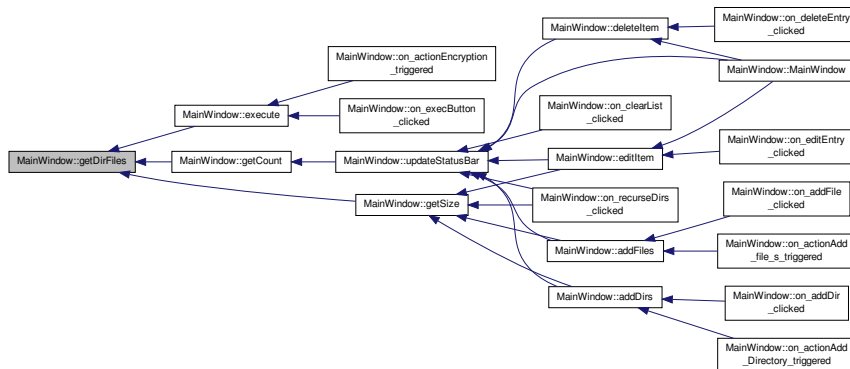
##### Parameters

<i>dirPath</i>	
----------------	--

## Returns

Referenced by `execute()`, `getCount()`, and `getSize()`.

Here is the caller graph for this function:



#### 7.3.4.12 Settings \* MainWindow::getSettings ( void ) const

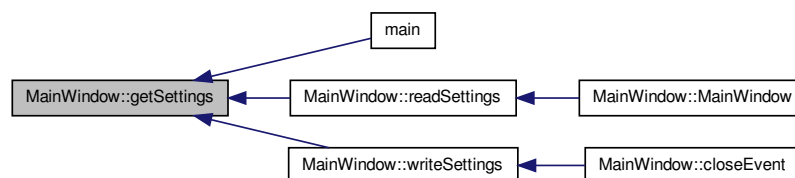
### MainWindow::getSettings.

## Returns

References currentSettings.

Referenced by `main()`, `readSettings()`, and `writeSettings()`.

Here is the caller graph for this function:

7.3.4.13 qint64 MainWindow::getSize ( const QString & *obj*, DataType *type* ) const [private]

### MainWindow::getSize.

## Parameters

<i>obj</i>	
<i>type</i>	

## Returns

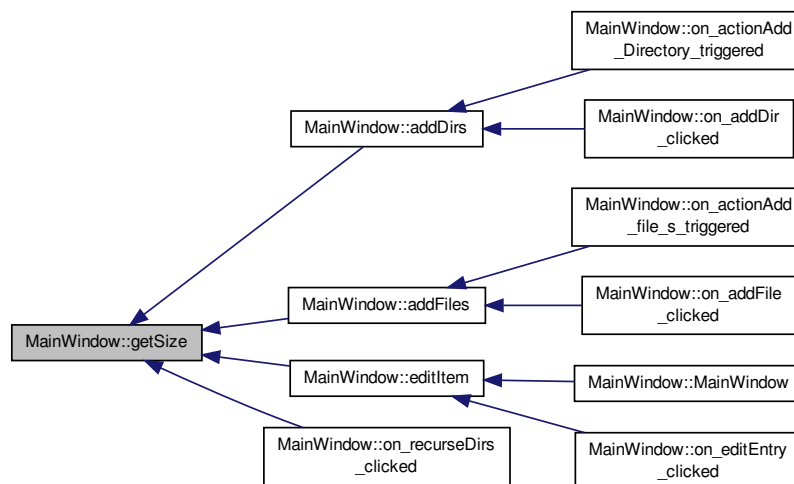
References Dir, File, getDirFiles(), and ui.

Referenced by addDirs(), addFiles(), editItem(), and on\_recurseDirs\_clicked().

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.3.4.14 QString MainWindow::getTextSize ( const quint64 size ) const [private]

[MainWindow::getTextSize.](#)

## Parameters

---

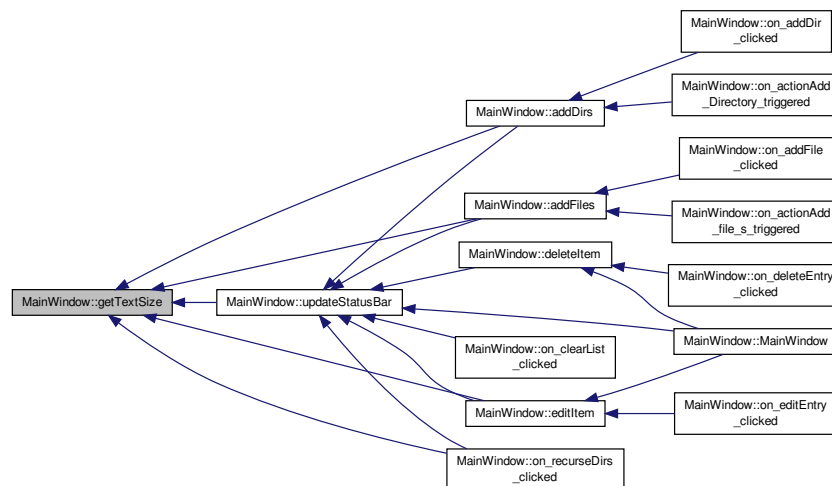


<i>size</i>	
-------------	--

**Returns**

Referenced by `addDirs()`, `addFiles()`, `editItem()`, `on_recurseDirs_clicked()`, and `updateStatusBar()`.

Here is the caller graph for this function:

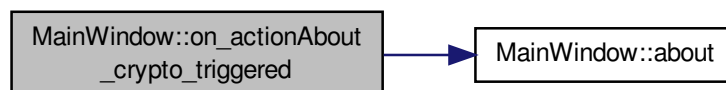


**7.3.4.15** `void MainWindow::on_actionAbout_crypto_triggered ( void )` [private],[slot]

[MainWindow::on\\_actionAbout\\_crypto\\_triggered.](#)

References `about()`.

Here is the call graph for this function:



**7.3.4.16** `void MainWindow::on_actionAbout_Qt_triggered ( void )` [private],[slot]

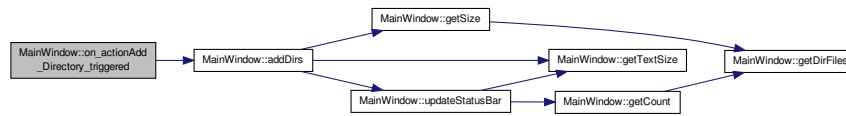
[MainWindow::on\\_actionAbout\\_Qt\\_triggered.](#)

**7.3.4.17** `void MainWindow::on_actionAdd_Directory_triggered ( void )` [private],[slot]

[MainWindow::on\\_actionAdd\\_Directory\\_triggered.](#)

References addDirs().

Here is the call graph for this function:

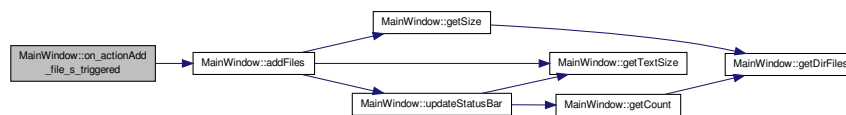


**7.3.4.18** void MainWindow::on\_actionAdd\_file\_s\_triggered ( void ) [private],[slot]

[MainWindow::on\\_actionAdd\\_file\\_s\\_triggered.](#)

References addFiles().

Here is the call graph for this function:



**7.3.4.19** void MainWindow::on\_actionContents\_triggered ( void ) [private],[slot]

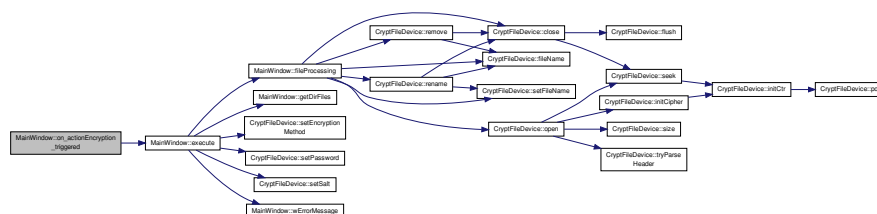
[MainWindow::on\\_actionContents\\_triggered.](#)

**7.3.4.20** void MainWindow::on\_actionEncryption\_triggered ( void ) [private],[slot]

[MainWindow::on\\_actionEncryption\\_triggered.](#)

References execute().

Here is the call graph for this function:



**7.3.4.21** void MainWindow::on\_actionFont\_triggered ( void ) [private],[slot]

[MainWindow::on\\_actionFont\\_triggered.](#)

7.3.4.22 `void MainWindow::on_actionQuit_triggered ( void ) [private],[slot]`

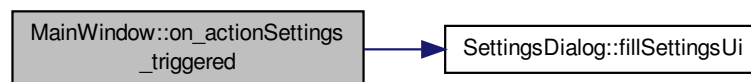
[MainWindow::on\\_actionQuit\\_triggered](#).

7.3.4.23 `void MainWindow::on_actionSettings_triggered ( void ) [private],[slot]`

[MainWindow::on\\_actionSettings\\_triggered](#).

References `SettingsDialog::fillSettingsUi()`, and `settings`.

Here is the call graph for this function:

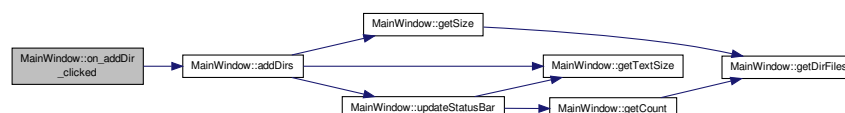


7.3.4.24 `void MainWindow::on_addDir_clicked ( void ) [private],[slot]`

[MainWindow::on\\_addDir\\_clicked](#).

References `addDirs()`.

Here is the call graph for this function:

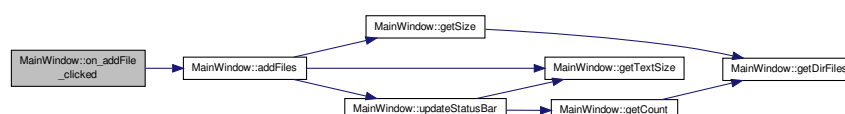


7.3.4.25 `void MainWindow::on_addFile_clicked ( void ) [private],[slot]`

[MainWindow::on\\_addFile\\_clicked](#).

References `addFiles()`.

Here is the call graph for this function:

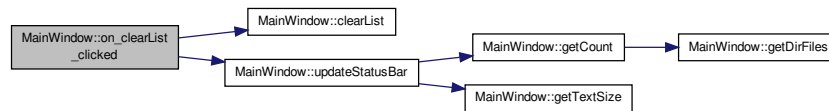


#### 7.3.4.26 void MainWindow::on\_clearList\_clicked ( void ) [private],[slot]

[MainWindow::on\\_clearList\\_clicked.](#)

References clearList(), fullSize, targets, ui, and updateStatusBar().

Here is the call graph for this function:



#### 7.3.4.27 void MainWindow::on\_deleteEntry\_clicked ( void ) [private],[slot]

[MainWindow::on\\_deleteEntry\\_clicked.](#)

References deleteItem().

Here is the call graph for this function:

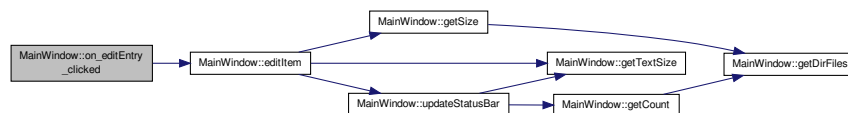


#### 7.3.4.28 void MainWindow::on\_editEntry\_clicked ( void ) [private],[slot]

[MainWindow::on\\_editEntry\\_clicked.](#)

References editItem().

Here is the call graph for this function:

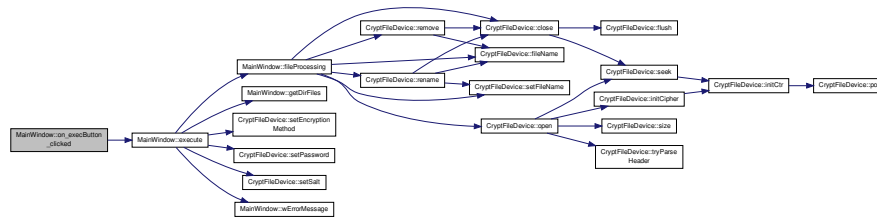


#### 7.3.4.29 void MainWindow::on\_execButton\_clicked ( void ) [private],[slot]

[MainWindow::on\\_execButton\\_clicked.](#)

References execute().

Here is the call graph for this function:



7.3.4.30 `void MainWindow::on_hidPassMode_clicked ( bool checked )` [private],[slot]

[MainWindow::on\\_hidPassMode\\_clicked.](#)

Parameters

<i>checked</i>	
----------------	--

References ui.

7.3.4.31 `void MainWindow::on_passConfirmLine_textChanged ( const QString & arg )` [private],[slot]

[MainWindow::on\\_passConfirmLine\\_textChanged.](#)

Parameters

<i>arg</i>	
------------	--

References ui.

7.3.4.32 `void MainWindow::on_passLine_textChanged ( const QString & arg )` [private],[slot]

[MainWindow::on\\_passLine\\_textChanged.](#)

Parameters

<i>arg</i>	
------------	--

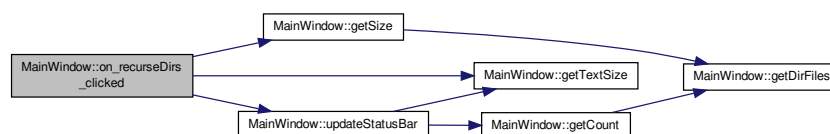
References ui.

7.3.4.33 `void MainWindow::on_recurseDirs_clicked ( void )` [private],[slot]

[MainWindow::on\\_recurseDirs\\_clicked.](#)

References Dir, fullSize, getSize(), getTextSize(), headview, targets, ui, and updateStatusBar().

Here is the call graph for this function:



**7.3.4.34** `void MainWindow::on_targetsList_currentCellChanged ( int , int , int , int )` [private],[slot]

[MainWindow::on\\_targetsList\\_currentCellChanged.](#)

References `deleteItemAction`, `editItemAction`, and `ui`.

**7.3.4.35** `void MainWindow::readSettings ( void )` [private]

[MainWindow::readSettings.](#)

References `Settings::enableLog`, `getSettings()`, `lastUsedDir`, `lastUsedPath`, `Settings::maxSizeLog`, `Settings::pathToLog`, `settings`, and `ui`.

Referenced by `MainWindow()`.

Here is the call graph for this function:



Here is the caller graph for this function:



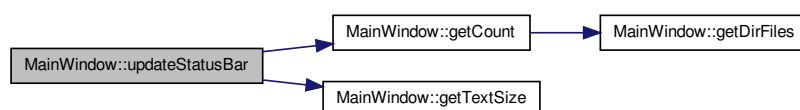
**7.3.4.36** `void MainWindow::updateStatusBar ( void ) const` [private]

[MainWindow::updateStatusBar.](#)

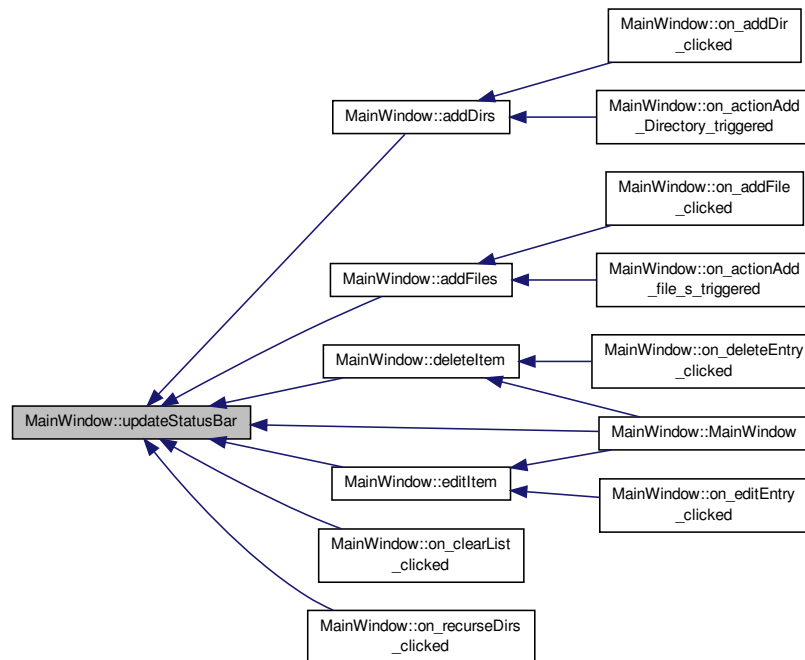
References `fullSize`, `getCount()`, `getTextSize()`, and `status`.

Referenced by `addDirs()`, `addFiles()`, `deleteItem()`, `editItem()`, `MainWindow()`, `on_clearList_clicked()`, and `on_recurseDirs_clicked()`.

Here is the call graph for this function:



Here is the caller graph for this function:



**7.3.4.37** `void MainWindow::wErrorMessage ( const QVariant & message ) [slot]`

[MainWindow::wErrorMessage.](#)

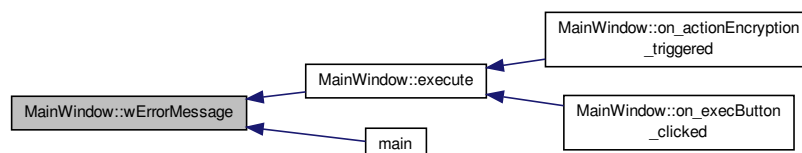
Parameters

<i>message</i>	
----------------	--

References `processError`.

Referenced by `execute()`, and `main()`.

Here is the caller graph for this function:



**7.3.4.38** `void MainWindow::writeSettings ( void ) const [private]`

[MainWindow::writeSettings.](#)

References `getSettings()`, `lastUsedDir`, `lastUsedPath`, `settings`, and `ui`.

Referenced by `closeEvent()`.

Here is the call graph for this function:



Here is the caller graph for this function:



### 7.3.5 Member Data Documentation

#### 7.3.5.1 `Settings*` `MainWindow::currentSettings` [private]

Referenced by `getSettings()`, and `MainWindow()`.

#### 7.3.5.2 `QAction*` `MainWindow::deleteItemAction` [private]

Referenced by `MainWindow()`, and `on_targetsList_currentCellChanged()`.

#### 7.3.5.3 `QAction*` `MainWindow::editItemAction` [private]

Referenced by `MainWindow()`, and `on_targetsList_currentCellChanged()`.

#### 7.3.5.4 `CryptFileDevice*` `MainWindow::encryptFile` [private]

Referenced by `execute()`, and `fileProcessing()`.

#### 7.3.5.5 `qint64` `MainWindow::fullSize` [private]

Referenced by `addDirs()`, `addFiles()`, `deleteItem()`, `editItem()`, `execute()`, `on_clearList_clicked()`, `on_recurseDirs_clicked()`, and `updateStatusBar()`.

#### 7.3.5.6 `QHeaderView*` `MainWindow::headview` [private]

Referenced by `addDirs()`, `addFiles()`, `editItem()`, `MainWindow()`, and `on_recurseDirs_clicked()`.



**7.3.5.7** `QString MainWindow::lastUsedDir` `[private]`

Referenced by `addDirs()`, `editItem()`, `readSettings()`, and `writeSettings()`.

**7.3.5.8** `QString MainWindow::lastUsedPath` `[private]`

Referenced by `addFiles()`, `editItem()`, `readSettings()`, and `writeSettings()`.

**7.3.5.9** `bool MainWindow::processError` `[private]`

Referenced by `execute()`, `fileProcessing()`, and `wErrorMessage()`.

**7.3.5.10** `SettingsDialog* MainWindow::settings` `[private]`

Referenced by `MainWindow()`, `on_actionSettings_triggered()`, `readSettings()`, and `writeSettings()`.

**7.3.5.11** `QLabel* MainWindow::status` `[private]`

Referenced by `MainWindow()`, and `updateStatusBar()`.

**7.3.5.12** `QList<QPair<DataType, qint64>> MainWindow::targets` `[private]`

Referenced by `addDirs()`, `addFiles()`, `deleteItem()`, `editItem()`, `execute()`, `getCount()`, `on_clearList_clicked()`, and `on_recurseDirs_clicked()`.

**7.3.5.13** `Ui::MainWindow* MainWindow::ui` `[private]`

Referenced by `addDirs()`, `addFiles()`, `clearList()`, `deleteItem()`, `editItem()`, `execute()`, `fileProcessing()`, `getCount()`, `getSize()`, `MainWindow()`, `on_clearList_clicked()`, `on_hidPassMode_clicked()`, `on_passConfirmLine_textChanged()`, `on_passLine_textChanged()`, `on_recurseDirs_clicked()`, `on_targetsList_currentCellChanged()`, `readSettings()`, `writeSettings()`, and `~MainWindow()`.

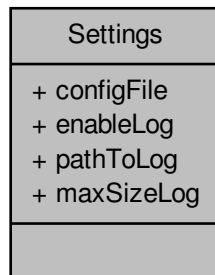
The documentation for this class was generated from the following files:

- [mainwindow.h](#)
- [mainwindow.cpp](#)

## 7.4 Settings Struct Reference

```
#include <settings.h>
```

Collaboration diagram for Settings:



## Public Attributes

- QString [configFile](#)
- bool [enableLog](#)
- QString [pathToLog](#)
- quint32 [maxSizeLog](#)

### 7.4.1 Member Data Documentation

#### 7.4.1.1 QString Settings::configFile

#### 7.4.1.2 bool Settings::enableLog

Referenced by SettingsDialog::fillSettingsUi(), main(), MainWindow::readSettings(), and SettingsDialog::updateSettings().

#### 7.4.1.3 quint32 Settings::maxSizeLog

Referenced by SettingsDialog::fillSettingsUi(), main(), MainWindow::readSettings(), and SettingsDialog::updateSettings().

#### 7.4.1.4 QString Settings::pathToLog

Referenced by SettingsDialog::fillSettingsUi(), main(), MainWindow::readSettings(), and SettingsDialog::updateSettings().

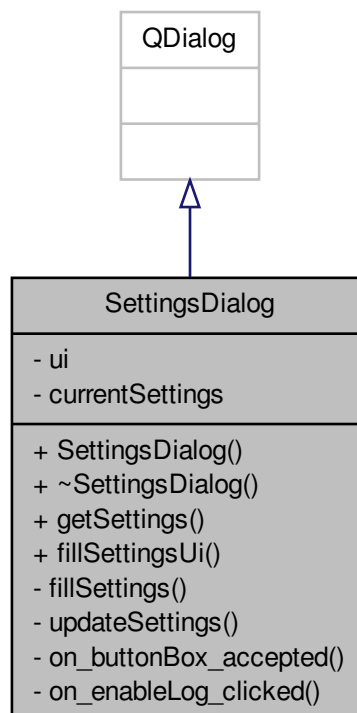
The documentation for this struct was generated from the following file:

- [settings.h](#)

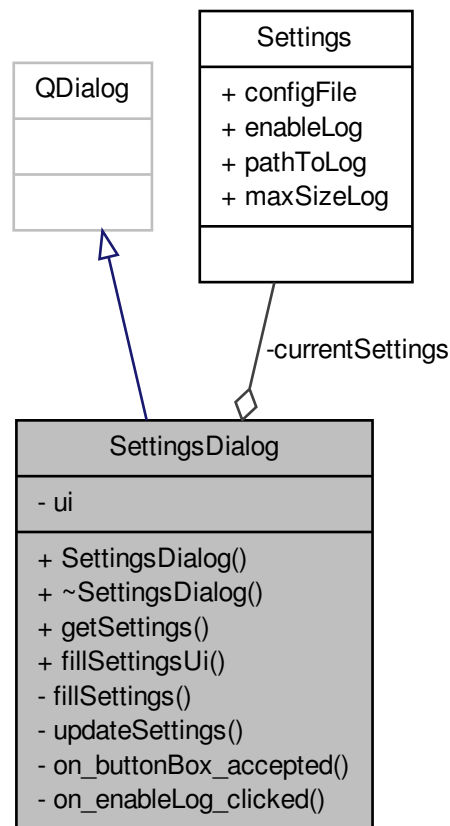
## 7.5 SettingsDialog Class Reference

```
#include <settingsdialog.h>
```

Inheritance diagram for SettingsDialog:



Collaboration diagram for SettingsDialog:



## Public Member Functions

- [SettingsDialog](#) (QWidget \*parent=0)  
*SettingsDialog::SettingsDialog.*
- [~SettingsDialog](#) ()  
*SettingsDialog::~~SettingsDialog.*
- [Settings \\* getSettings](#) (void)  
*SettingsDialog::getSettings.*
- void [fillSettingsUi](#) (void)  
*SettingsDialog::fillSettingsUi.*

## Private Slots

- void [on\\_buttonBox\\_accepted](#) (void)  
*SettingsDialog::on\_buttonBox\_accepted.*
- void [on\\_enableLog\\_clicked](#) (bool checked)  
*SettingsDialog::on\_enableLog\_clicked.*

## Private Member Functions

- void [fillSettings](#) (void)  
[SettingsDialog::fillSettings.](#)
- void [updateSettings](#) (void)  
[SettingsDialog::updateSettings.](#)

## Private Attributes

- Ui::SettingsDialog \* [ui](#)
- [Settings](#) [currentSettings](#)

## 7.5.1 Constructor & Destructor Documentation

7.5.1.1 [SettingsDialog::SettingsDialog](#) ( *QWidget* \* *parent* = 0 ) [explicit]

[SettingsDialog::SettingsDialog.](#)

Parameters

<i>parent</i>	
---------------	--

7.5.1.2 [SettingsDialog::~~SettingsDialog](#) ( )

[SettingsDialog::~~SettingsDialog.](#)

References [ui](#).

## 7.5.2 Member Function Documentation

7.5.2.1 void [SettingsDialog::fillSettings](#) ( void ) [private]

[SettingsDialog::fillSettings.](#)

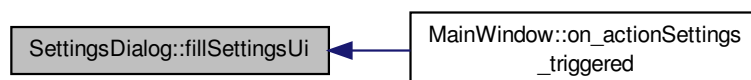
7.5.2.2 void [SettingsDialog::fillSettingsUi](#) ( void )

[SettingsDialog::fillSettingsUi.](#)

References [currentSettings](#), [Settings::enableLog](#), [Settings::maxSizeLog](#), [Settings::pathToLog](#), and [ui](#).

Referenced by [MainWindow::on\\_actionSettings\\_triggered](#)().

Here is the caller graph for this function:



### 7.5.2.3 Settings \* SettingsDialog::getSettings ( void )

[SettingsDialog::getSettings.](#)

Returns

References currentSettings.

Referenced by MainWindow::MainWindow().

Here is the caller graph for this function:

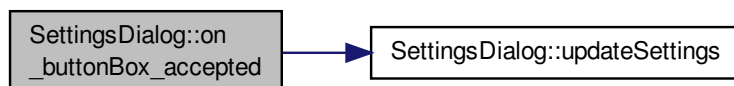


### 7.5.2.4 void SettingsDialog::on\_buttonBox\_accepted ( void ) [private],[slot]

[SettingsDialog::on\\_buttonBox\\_accepted.](#)

References updateSettings().

Here is the call graph for this function:



### 7.5.2.5 void SettingsDialog::on\_enableLog\_clicked ( bool checked ) [private],[slot]

[SettingsDialog::on\\_enableLog\\_clicked.](#)

Parameters

<i>checked</i>	
----------------	--

References ui.

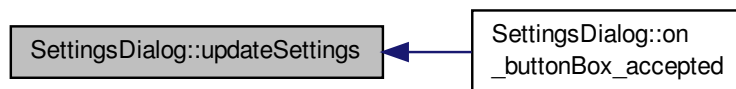
### 7.5.2.6 void SettingsDialog::updateSettings ( void ) [private]

[SettingsDialog::updateSettings.](#)

References currentSettings, Settings::enableLog, Settings::maxSizeLog, Settings::pathToLog, and ui.

Referenced by `on_buttonBox_accepted()`.

Here is the caller graph for this function:



### 7.5.3 Member Data Documentation

#### 7.5.3.1 Settings `SettingsDialog::currentSettings` [private]

Referenced by `fillSettingsUi()`, `getSettings()`, and `updateSettings()`.

#### 7.5.3.2 `Ui::SettingsDialog*` `SettingsDialog::ui` [private]

Referenced by `fillSettingsUi()`, `on_enableLog_clicked()`, `updateSettings()`, and `~SettingsDialog()`.

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

- [settingsdialog.h](#)
- [settingsdialog.cpp](#)





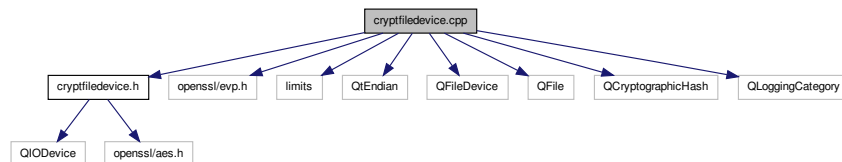
## Chapter 8

# File Documentation

### 8.1 cryptfiledevice.cpp File Reference

```
#include "cryptfiledevice.h"  
#include <openssl/evp.h>  
#include <limits>  
#include <QtEndian>  
#include <QIODevice>  
#include <QFile>  
#include <QCryptographicHash>  
#include <QLoggingCategory>
```

Include dependency graph for cryptfiledevice.cpp:



### Variables

- static int const `kHeaderLength` = 128
- static int const `kSaltMaxLength` = 8

#### 8.1.1 Variable Documentation

##### 8.1.1.1 int const kHeaderLength = 128 [static]

Referenced by `CryptFileDevice::insertHeader()`, `CryptFileDevice::open()`, `CryptFileDevice::seek()`, `CryptFileDevice::size()`, and `CryptFileDevice::tryParseHeader()`.

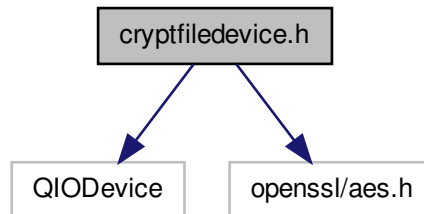
##### 8.1.1.2 int const kSaltMaxLength = 8 [static]

Referenced by `CryptFileDevice::setSalt()`.

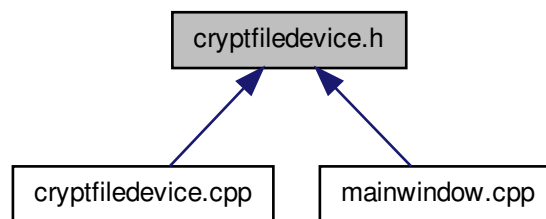
## 8.2 cryptfiledevice.h File Reference

```
#include <QIODevice>
#include <openssl/aes.h>
```

Include dependency graph for cryptfiledevice.h:



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



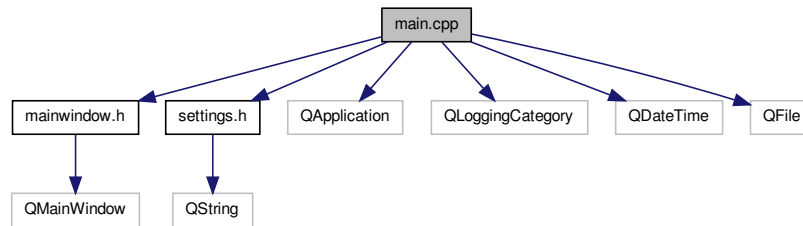
### Classes

- struct [CtrState](#)
- class [CryptFileDevice](#)

## 8.3 main.cpp File Reference

```
#include "mainwindow.h"
#include "settings.h"
#include <QApplication>
#include <QLoggingCategory>
#include <QDateTime>
#include <QFile>
```

Include dependency graph for main.cpp:



## Macros

- `#define ONEKB 1024`

## Functions

- void `logMessageOutput` (const QtMsgType type, const QMessageLogContext &context, const QString &msg)  
*logMessageOutput*
- int `main` (int argc, char \*argv[])  
*main*

## Variables

- static QScopedPointer< QFile > `m_logFile`

### 8.3.1 Macro Definition Documentation

#### 8.3.1.1 `#define ONEKB 1024`

Referenced by `main()`.

### 8.3.2 Function Documentation

#### 8.3.2.1 void `logMessageOutput` ( const QtMsgType type, const QMessageLogContext & context, const QString & msg )

`logMessageOutput`

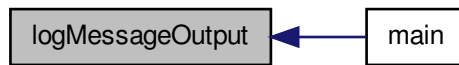
##### Parameters

in	<i>type</i>	of the type QtMsgType
in	<i>context</i>	of type QMessageLogContext
in	<i>msg</i>	of the type QString

References `m_logFile`.

Referenced by `main()`.

Here is the caller graph for this function:



### 8.3.2.2 int main ( int *argc*, char \* *argv*[] )

main

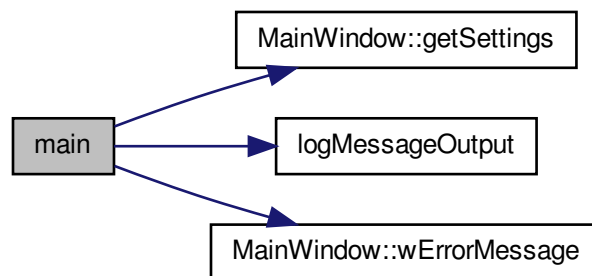
#### Parameters

<i>argc</i>	
<i>argv</i>	

#### Returns

References Settings::enableLog, MainWindow::getSettings(), logMessageOutput(), Settings::maxSizeLog, ONEKB, Settings::pathToLog, and MainWindow::wErrorMessage().

Here is the call graph for this function:



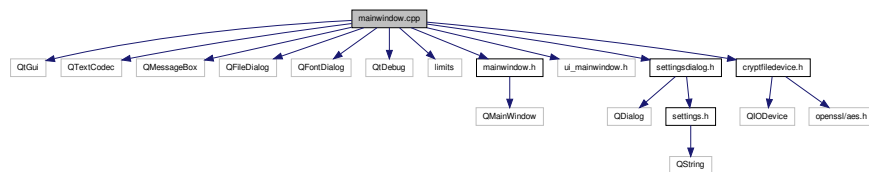
## 8.3.3 Variable Documentation

### 8.3.3.1 QScopedPointer<QFile> m\_logFile [static]

Referenced by logMessageOutput().

## 8.4 mainwindow.cpp File Reference

```
#include <QtGui>
#include <QTextCodec>
#include <QMessageBox>
#include <QFileDialog>
#include <QFontDialog>
#include <QtDebug>
#include <limits>
#include "mainwindow.h"
#include "ui_mainwindow.h"
#include "settingsdialog.h"
#include "cryptfiledevice.h"
Include dependency graph for mainwindow.cpp:
```



### Macros

- `#define` [COEFF](#) 1048576
- `#define` [ONEKB](#) 1024

### 8.4.1 Macro Definition Documentation

#### 8.4.1.1 `#define` [COEFF](#) 1048576

Referenced by `MainWindow::execute()`, and `MainWindow::fileProcessing()`.

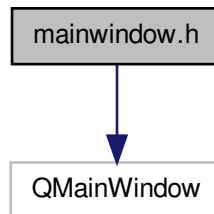
#### 8.4.1.2 `#define` [ONEKB](#) 1024

Referenced by `MainWindow::execute()`.

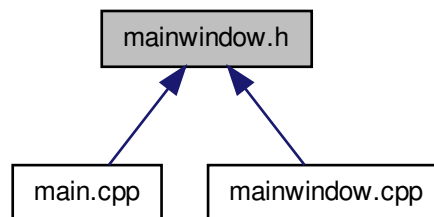
## 8.5/mainwindow.h File Reference

```
#include <QMainWindow>
```

Include dependency graph for/mainwindow.h:



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



### Classes

- class [MainWindow](#)  
The *MainWindow* class.

### Namespaces

- [Ui](#)

### Enumerations

- enum [ProcessStatus](#) { [PROCESS\\_STATUS\\_SUCCESS](#), [PROCESS\\_STATUS\\_CONTINUE](#), [PROCESS\\_STATUS\\_BREAK](#), [PROCESS\\_STATUS\\_STATE\\_ERROR](#) }

#### 8.5.1 Enumeration Type Documentation

## 8.5.1.1 enum ProcessStatus

## Enumerator

**PROCESS\_STATUS\_SUCCESS** Execution has been successful.

**PROCESS\_STATUS\_CONTINUE** Provided file path(s) are invalid.

**PROCESS\_STATUS\_BREAK** I/O Error or not enough storage space.

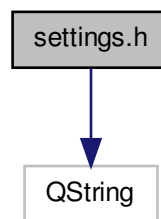
**PROCESS\_STATUS\_STATE\_ERROR** Bad allocation memory, etc.

## 8.6 README.md File Reference

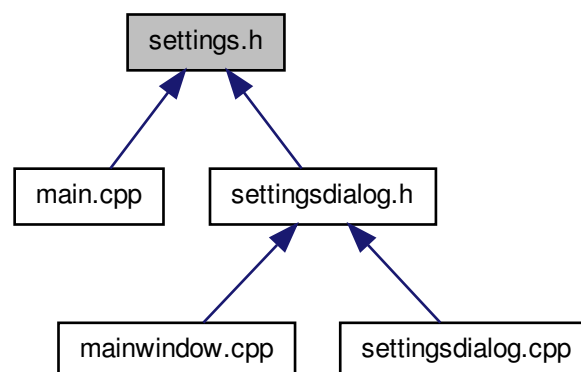
## 8.7 settings.h File Reference

```
#include <QString>
```

Include dependency graph for settings.h:



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

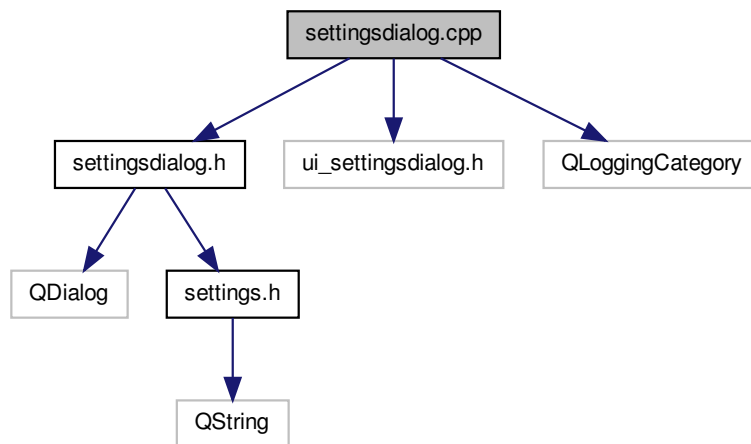


## Classes

- struct [Settings](#)

## 8.8 settingsdialog.cpp File Reference

```
#include "settingsdialog.h"  
#include "ui_settingsdialog.h"  
#include <QLoggingCategory>  
Include dependency graph for settingsdialog.cpp:
```

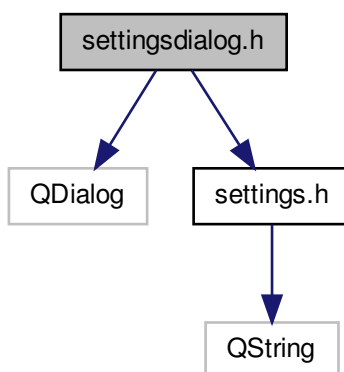


## 8.9 settingsdialog.h File Reference

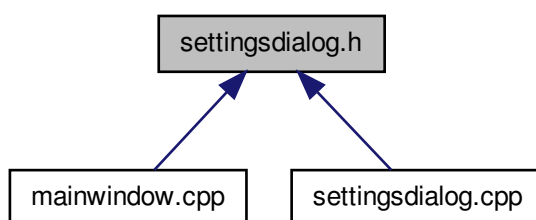
```
#include <QDialog>  
#include "settings.h"
```



Include dependency graph for settingsdialog.h:



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



## Classes

- class [SettingsDialog](#)

## Namespaces

- [Ui](#)

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