



Swelio

Belgian EID card SDK

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a

1 Symbol Reference












1.1 Swelio.Engine Namespace

This is namespace Swelio.Engine.

Classes

	Name	Description
	Address (see page 2)	Represents a postal address of the person
	Algorithm (see page 4)	This is class Swelio.Engine.Algorithm.
	Card (see page 7)	This class represents a Belgian EID card
	CardDate (see page 14)	Handles dates conversion between internal EID format and YYYYMMDD format
	CardEventArgs (see page 15)	This is class Swelio.Engine.CardEventArgs.
	CardNumber (see page 16)	EID card number formatter. This class takes EID card number in raw form as input and return formatted EID card number
	CardReader (see page 17)	The physical smart card (see page 19) reader
	DocumentContainer (see page 21)	ASiC document container. Associated Signature Containers (ASiC) specifies the use of container structures to bind together one or more signed objects with either advanced electronic signatures or timestamp tokens into one single digital container.
	EIDAddress (see page 24)	EID address information, stored on the card
	EIDCertificate (see page 25)	Certificate, stored on EID card
	EIDDataLength (see page 26)	Maximum length of EID fields
	EIDError (see page 32)	This is class Swelio.Engine.EIDError.
	EIDIdentity (see page 33)	Identity (see page 54) information stored on EID card
	EIDPicture (see page 39)	Raw picture (see page 39) data from EID card
	Encryption (see page 40)	
	FileOperations (see page 47)	Helper class for common file operations
	Identity (see page 54)	Holds identity information that is stored on EID card
	InteropHelper (see page 60)	Helper class for accessing native Windows API and resources Not recommended to use it directly without deep understanding of Windows API
	Manager (see page 64)	The Swelio Engine Manager class used to activate and deactivate engine and gives an access to the smart card readers, connected to the PC
	NationalNumber (see page 69)	National number formatter
	NativeMethods (see page 69)	This is class Swelio.Engine.NativeMethods.
	Network (see page 111)	This is class Swelio.Engine.Network.
	PdfDocument (see page 112)	This is class Swelio.Engine.PdfDocument.
	PostalAddress (see page 114)	This is class Swelio.Engine.PostalAddress.
	QRCode (see page 116)	QR Code encoder class
	RecycleBin (see page 118)	Send (see page 119) files directly to the recycle bin.
	WindowsOperations (see page 120)	Windows power management class

Enumerations

	Name	Description
	CardEvent (see page 121)	The code of the card event
	CertificateType (see page 121)	The type of the certificate
	ChangeWindowMessageFilterFlags (see page 121)	This is record Swelio.Engine.ChangeWindowMessageFilterFlags.
	DocumentType (see page 122)	This is record Swelio.Engine.DocumentType.
	ErrorCorrectionLevel (see page 122)	This is record Swelio.Engine.ErrorCorrectionLevel.
	ExportFormat (see page 123)	This is record Swelio.Engine.ExportFormat.
	FileEncoding (see page 123)	This is record Swelio.Engine.FileEncoding.
	Gender (see page 123)	This is record Swelio.Engine.Gender.
	Organization (see page 124)	This is record Swelio.Engine.Organization.
	PhotoFormat (see page 124)	This is record Swelio.Engine.PhotoFormat.
	ShutdownOption (see page 124)	Windows shutdown options

Types

Name	Description
ReaderCallbackDelegate (see page 125)	This is type Swelio.Engine.ReaderCallbackDelegate.
WndProcDelegate (see page 125)	This is type Swelio.Engine.WndProcDelegate.

1.1.1 Address Class

Represents a postal address of the person

Inheritance Hierarchy

Swelio.Engine.Address

C#

```
[Browsable(false)]  
public class Address;
```


File

File: Address.cs ([see page 129](#))

Namespace: Swelio.Engine ([see page 1](#))

Members

Methods

	Name	Description
	Address (see page 3)	Initializes a new instance of the Address class.


Address Methods

	Name	Description
	Parse (see page 3)	Parses address string to street name and house number


Address Properties

	Name	Description
 R	Municipality (see page 3)	Municipality
 R	Street (see page 4)	Street name
 R	Zip (see page 4)	ZIP code







Methods

	Name	Description
	Address (🔗 see page 3)	Initializes a new instance of the Address class.

Address Methods

	Name	Description
	Parse (🔗 see page 3)	Parses address string to street name and house number

Address Properties

	Name	Description
 	Municipality (🔗 see page 3)	Municipality
 	Street (🔗 see page 4)	Street name
 	Zip (🔗 see page 4)	ZIP code

1.1.1.1 Address.Address Constructor

Initializes a new instance of the Address (🔗 see page 2) class.

C#

```
public Address(string street, string zip, string municipality);
```

Parameters

Parameters	Description
string street	The street.
string zip	The zip code.
string municipality	The municipality.

1.1.1.2 Address Methods

1.1.1.2.1 Address.Parse Method

Parses address string to street name and house number

C#

```
public PostalAddress Parse();
```

Returns

The postal address

1.1.1.3 Address Properties

1.1.1.3.1 Address.Municipality Property

Municipality

C#

```
[Description("Municipality")]
public string Municipality;
```

1.1.1.3.2 Address.Street Property

Street name

C#

```
[Description("Street name")]
public string Street;
```

1.1.1.3.3 Address.Zip Property

ZIP code

C#

```
[Description("ZIP code")]
public string Zip;
```

1.1.2 Algorithm Class

Inheritance Hierarchy

Swelio.Engine.Algorithm

C#

```
public static class Algorithm;
```

File

File: Algorithm.cs (see page 129)














Namespace: Swelio.Engine (see page 1)

Remarks














This is class Swelio.Engine.Algorithm.

Members

Algorithm Fields

	Name	Description
	ECDSA (see page 5)	This is ECDSA, a member of class Algorithm.
	ECDSA_SHA2_256 (see page 5)	This is ECDSA_SHA2_256, a member of class Algorithm.
	ECDSA_SHA2_384 (see page 5)	This is ECDSA_SHA2_384, a member of class Algorithm.
	ECDSA_SHA2_512 (see page 5)	This is ECDSA_SHA2_512, a member of class Algorithm.
	ECDSA_SHA3_256 (see page 6)	This is ECDSA_SHA3_256, a member of class Algorithm.
	ECDSA_SHA3_384 (see page 6)	This is ECDSA_SHA3_384, a member of class Algorithm.
	ECDSA_SHA3_512 (see page 6)	This is ECDSA_SHA3_512, a member of class Algorithm.
	RSASSA_PKCS1 (see page 6)	This is RSASSA_PKCS1, a member of class Algorithm.
	RSASSA_PKCS1_MD5 (see page 6)	This is RSASSA_PKCS1_MD5, a member of class Algorithm.
	RSASSA_PKCS1_SHA1 (see page 6)	This is RSASSA_PKCS1_SHA1, a member of class Algorithm.
	RSASSA_PKCS1_SHA256 (see page 7)	This is RSASSA_PKCS1_SHA256, a member of class Algorithm.
	RSASSA_PSS_SHA1 (see page 7)	This is RSASSA_PSS_SHA1, a member of class Algorithm.
	RSASSA_PSS_SHA256 (see page 7)	This is RSASSA_PSS_SHA256, a member of class Algorithm.

Algorithm Fields

	Name	Description
	ECDSA (see page 5)	This is ECDSA, a member of class Algorithm.
	ECDSA_SHA2_256 (see page 5)	This is ECDSA_SHA2_256, a member of class Algorithm.
	ECDSA_SHA2_384 (see page 5)	This is ECDSA_SHA2_384, a member of class Algorithm.
	ECDSA_SHA2_512 (see page 5)	This is ECDSA_SHA2_512, a member of class Algorithm.
	ECDSA_SHA3_256 (see page 6)	This is ECDSA_SHA3_256, a member of class Algorithm.
	ECDSA_SHA3_384 (see page 6)	This is ECDSA_SHA3_384, a member of class Algorithm.
	ECDSA_SHA3_512 (see page 6)	This is ECDSA_SHA3_512, a member of class Algorithm.
	RSASSA_PKCS1 (see page 6)	This is RSASSA_PKCS1, a member of class Algorithm.
	RSASSA_PKCS1_MD5 (see page 6)	This is RSASSA_PKCS1_MD5, a member of class Algorithm.
	RSASSA_PKCS1_SHA1 (see page 6)	This is RSASSA_PKCS1_SHA1, a member of class Algorithm.
	RSASSA_PKCS1_SHA256 (see page 7)	This is RSASSA_PKCS1_SHA256, a member of class Algorithm.
	RSASSA_PSS_SHA1 (see page 7)	This is RSASSA_PSS_SHA1, a member of class Algorithm.
	RSASSA_PSS_SHA256 (see page 7)	This is RSASSA_PSS_SHA256, a member of class Algorithm.

1.1.2.1 Algorithm Fields

1.1.2.1.1 Algorithm.ECDSA Field

C#

```
public const byte ECDSA = 0x40;
```

Remarks

This is ECDSA, a member of class Algorithm.

1.1.2.1.2 Algorithm.ECDSA_SHA2_256 Field

C#

```
public const byte ECDSA_SHA2_256 = 0x01;
```

Remarks

This is ECDSA_SHA2_256, a member of class Algorithm.

1.1.2.1.3 Algorithm.ECDSA_SHA2_384 Field

C#

```
public const byte ECDSA_SHA2_384 = 0x02;
```

Remarks

This is ECDSA_SHA2_384, a member of class Algorithm.

1.1.2.1.4 Algorithm.ECDSA_SHA2_512 Field

C#

```
public const byte ECDSA_SHA2_512 = 0x04;
```

Remarks

This is ECDSA_SHA2_512, a member of class Algorithm.

1.1.2.1.5 Algorithm.ECDSA_SHA3_256 Field**C#**

```
public const byte ECDSA_SHA3_256 = 0x08;
```

Remarks

This is ECDSA_SHA3_256, a member of class Algorithm.

1.1.2.1.6 Algorithm.ECDSA_SHA3_384 Field**C#**

```
public const byte ECDSA_SHA3_384 = 0x10;
```

Remarks

This is ECDSA_SHA3_384, a member of class Algorithm.

1.1.2.1.7 Algorithm.ECDSA_SHA3_512 Field**C#**

```
public const byte ECDSA_SHA3_512 = 0x20;
```

Remarks

This is ECDSA_SHA3_512, a member of class Algorithm.

1.1.2.1.8 Algorithm.RSASSA_PKCS1 Field**C#**

```
public const byte RSASSA_PKCS1 = 0x01;
```

Remarks

This is RSASSA_PKCS1, a member of class Algorithm.

1.1.2.1.9 Algorithm.RSASSA_PKCS1_MD5 Field**C#**

```
public const byte RSASSA_PKCS1_MD5 = 0x04;
```

Remarks

This is RSASSA_PKCS1_MD5, a member of class Algorithm.

1.1.2.1.10 Algorithm.RSASSA_PKCS1_SHA1 Field**C#**

```
public const byte RSASSA_PKCS1_SHA1 = 0x02;
```

Remarks

This is RSASSA_PKCS1_SHA1, a member of class Algorithm.

1.1.2.1.11 Algorithm.RSASSA_PKCS1_SHA256 Field

C#

```
public const byte RSASSA_PKCS1_SHA256 = 0x08;
```

Remarks

This is RSASSA_PKCS1_SHA256, a member of class Algorithm.

1.1.2.1.12 Algorithm.RSASSA_PSS_SHA1 Field

C#

```
public const byte RSASSA_PSS_SHA1 = 0x10;
```

Remarks

This is RSASSA_PSS_SHA1, a member of class Algorithm.

1.1.2.1.13 Algorithm.RSASSA_PSS_SHA256 Field

C#

```
public const byte RSASSA_PSS_SHA256 = 0x20;
```

Remarks

This is RSASSA_PSS_SHA256, a member of class Algorithm.

1.1.3 Card Class

This class represents a Belgian EID card

Inheritance Hierarchy



C#

```
public sealed class Card : IDisposable;
```

File

File: Card.cs (🔗 see page 129)

Namespace: Swelio.Engine (🔗 see page 1)











Members

Methods






	Name	Description
🔗	Card (🔗 see page 9)	Initializes a new instance of the Card class.

Card Methods

	Name	Description
🔗	DisplayCertificate (🔗 see page 9)	Displays the certificate.
🔗	Dispose (🔗 see page 9)	Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.
🔗	EncodeCertificate (🔗 see page 10)	Encodes the certificate.
🔗	EncodePhoto (🔗 see page 10)	Encodes the photo. Use this method if you want to store the photo in the text file, for example in XML or JSON

	ReadAddress (see page 10)	Reads the address of the person from the card.
	ReadCertificate (see page 10)	Reads the certificate.
	ReadIdentity (see page 11)	This is ReadIdentity, a member of class Card.
	ReadPhoto (see page 11)	Reads the photo from id card and returns the Image instance.
	ReadPhotoBytes (see page 11)	Reads the photo bytes from the card.
	Save (see page 11)	Saves information from the card to the string.
	SaveCertificate (see page 12)	Saves the certificate.
	SavePhoto (see page 12)	Saves the photo.
	SaveQRCode (see page 12)	Saves the QR code.
	VerifyPinCode (see page 12)	Verifies the pin code.















Card Properties

	Name	Description
	AppletVersion (see page 13)	This is AppletVersion, a member of class Card.
	EidCard (see page 13)	Gets a value indicating whether the card is eid card.
	Inserted (see page 13)	Gets a value indicating whether the Card is inserted in the card reader.
	SerialNumber (see page 13)	This is SerialNumber, a member of class Card.
	Tag (see page 13)	This is Tag, a member of class Card.





Methods

	Name	Description
	Card (see page 9)	Initializes a new instance of the Card class.

Card Methods

	Name	Description
	DisplayCertificate (see page 9)	Displays the certificate.
	Dispose (see page 9)	Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.
	EncodeCertificate (see page 10)	Encodes the certificate.
	EncodePhoto (see page 10)	Encodes the photo. Use this method if you want to store the photo in the text file, for example in XML or JSON
	ReadAddress (see page 10)	Reads the address of the person from the card.
	ReadCertificate (see page 10)	Reads the certificate.
	ReadIdentity (see page 11)	This is ReadIdentity, a member of class Card.
	ReadPhoto (see page 11)	Reads the photo from id card and returns the Image instance.
	ReadPhotoBytes (see page 11)	Reads the photo bytes from the card.
	Save (see page 11)	Saves information from the card to the string.
	SaveCertificate (see page 12)	Saves the certificate.
	SavePhoto (see page 12)	Saves the photo.
	SaveQRCode (see page 12)	Saves the QR code.
	VerifyPinCode (see page 12)	Verifies the pin code.

Card Properties

	Name	Description
	AppletVersion (see page 13)	This is AppletVersion, a member of class Card.
	EidCard (see page 13)	Gets a value indicating whether the card is eid card.
	Inserted (see page 13)	Gets a value indicating whether the Card is inserted in the card reader.
	SerialNumber (see page 13)	This is SerialNumber, a member of class Card.

	Tag (🔗 see page 13)	This is Tag, a member of class Card.
---	---------------------	--------------------------------------

1.1.3.1 Card.Card Constructor

Initializes a new instance of the Card (🔗 see page 7) class.

C#

```
internal Card(CardReader reader) ;
```

Parameters

Parameters	Description
CardReader reader	The reader.

1.1.3.2 Card Methods

1.1.3.2.1 DisplayCertificate Method

1.1.3.2.1.1 Card.DisplayCertificate Method (CertificateType)

Displays the certificate.

C#

```
public void DisplayCertificate(CertificateType certificate) ;
```

Parameters

Parameters	Description
CertificateType certificate	The certificate.

1.1.3.2.1.2 Card.DisplayCertificate Method (string)

Displays the certificate.

C#

```
public void DisplayCertificate(string fileName) ;
```

Parameters

Parameters	Description
string fileName	Name of the file.

1.1.3.2.2 Dispose Method

1.1.3.2.2.1 Card.Dispose Method ()

Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.

C#

```
public void Dispose() ;
```

1.1.3.2.2.2 Card.Dispose Method (bool)

Releases unmanaged and - optionally - managed resources

C#

```
internal void Dispose(bool disposing) ;
```


Parameters

Parameters	Description
bool disposing	true to release both managed and unmanaged resources; false to release only unmanaged resources.

1.1.3.2.3 Card.EncodeCertificate Method

Encodes the certificate.

C#

```
public byte[] EncodeCertificate(CertificateType certificate);
```

Parameters

Parameters	Description
CertificateType certificate	The certificate.

1.1.3.2.4 EncodePhoto Method

1.1.3.2.4.1 Card.EncodePhoto Method ()

Encodes the photo. Use this method if you want to store the photo in the text file, for example in XML or JSON

C#

```
public byte[] EncodePhoto();
```

1.1.3.2.4.2 Card.EncodePhoto Method (string)

Encodes the photo.

C#

```
public byte[] EncodePhoto(string fileName);
```

Parameters

Parameters	Description
string fileName	Name of the file.

1.1.3.2.5 Card.ReadAddress Method

Reads the address of the person from the card.

C#

```
public Address ReadAddress();
```

Returns

Returns the postal adress of the person

1.1.3.2.6 Card.ReadCertificate Method

Reads the certificate.

C#

```
public byte[] ReadCertificate(CertificateType certificate);
```

Parameters

Parameters	Description
CertificateType certificate	The certificate.

1.1.3.2.7 Card.ReadIdentity Method

C#

```
public Identity ReadIdentity();
```

Remarks

This is ReadIdentity, a member of class Card.

1.1.3.2.8 Card.ReadPhoto Method

Reads the photo from id card and returns the Image instance.

C#

```
public Image ReadPhoto();
```

1.1.3.2.9 Card.ReadPhotoBytes Method

Reads the photo bytes from the card.

C#

```
public byte[] ReadPhotoBytes();
```

Returns

Array of bytes from the picture stored on id card "as-is"

1.1.3.2.10 Save Method

1.1.3.2.10.1 Card.Save Method (ExportFormat)

Saves information from the card to the string.

C#

```
public string Save(ExportFormat format);
```

Parameters

Parameters	Description
ExportFormat format	The format.
fileName	Name of the file.
encoding	The encoding.

1.1.3.2.10.2 Card.Save Method (string, ExportFormat)

Saves information from the card to the file with specified file name.

C#

```
public bool Save(string fileName, ExportFormat format);
```

Parameters

Parameters	Description
string fileName	Name of the file.

ExportFormat format	The format of the export.
---------------------	---------------------------

1.1.3.2.10.3 Card.Save Method (string, ExportFormat, FileEncoding)

Saves information from the card to the file with specified file name.

C#

```
public bool Save(string fileName, ExportFormat format, FileEncoding encoding);
```

Parameters

Parameters	Description
string fileName	Name of the file.
ExportFormat format	The format.
FileEncoding encoding	The encoding.

1.1.3.2.11 Card.SaveCertificate Method

Saves the certificate.

C#

```
public void SaveCertificate(string fileName, CertificateType certificate);
```

Parameters

Parameters	Description
string fileName	Name of the file.
CertificateType certificate	The certificate.

1.1.3.2.12 Card.SavePhoto Method

Saves the photo.

C#

```
public bool SavePhoto(string fileName, PhotoFormat format);
```

Parameters

Parameters	Description
string fileName	Name of the file.
PhotoFormat format	The format.

1.1.3.2.13 Card.SaveQRCode Method

Saves the QR code.

C#

```
public bool SaveQRCode(string fileName);
```

Parameters

Parameters	Description
string fileName	Name of the file.

1.1.3.2.14 Card.VerifyPinCode Method

Verifies the pin code.

C#

```
public bool VerifyPinCode(string pinCode);
```

Parameters

Parameters	Description
string pinCode	The pin code.

1.1.3.3 Card Properties

1.1.3.3.1 Card.AppletVersion Property

C#

```
public int AppletVersion;
```

Remarks

This is AppletVersion, a member of class Card.

1.1.3.3.2 Card.EidCard Property

Gets a value indicating whether the card is eid card.

C#

```
public bool EidCard;
```

Description

true if the card is eid card; otherwise, false.

1.1.3.3.3 Card.Inserted Property

Gets a value indicating whether the Card ([see page 7](#)) is inserted in the card reader.

C#

```
public bool Inserted;
```

Description

true if inserted; otherwise, false.

1.1.3.3.4 Card.SerialNumber Property

C#

```
public string SerialNumber;
```

Remarks

This is SerialNumber, a member of class Card.

1.1.3.3.5 Card.Tag Property

C#

```
public int Tag;
```

Remarks

This is Tag, a member of class Card.

1.1.4 CardDate Class

Handles dates conversion between internal EID format and YYYYMMDD format

Inheritance Hierarchy

Swelio.Engine.CardDate

C#

```
public static class CardDate;
```

File

File: CardDate.cs (see page 129)

Namespace: Swelio.Engine (see page 1)

Members

CardDate Methods

	Name	Description
💎💰💵	ToDate (see page 14)	Converts from the internal EID representation to System.DateTime
💎💰💵	ToLongDateString (see page 15)	Converts the value from YYYYMMDD format to its equivalent long date string representation
💎💰💵	ToShortDateString (see page 15)	Converts the value from YYYYMMDD format to its equivalent short date string representation

CardDate Methods

	Name	Description
💎💰💵	ToDate (see page 14)	Converts from the internal EID representation to System.DateTime
💎💰💵	ToLongDateString (see page 15)	Converts the value from YYYYMMDD format to its equivalent long date string representation
💎💰💵	ToShortDateString (see page 15)	Converts the value from YYYYMMDD format to its equivalent short date string representation

1.1.4.1 CardDate Methods

1.1.4.1.1 CardDate.ToDate Method

Converts from the internal EID representation to System.DateTime

C#

```
public static DateTime ToDate(string date);
```

Parameters

Parameters	Description
string date	The unformatted date string

Returns

System.DateTime

1.1.4.1.2 CardDate.ToLongDateString Method

Converts the value from YYYYMMDD format to its equivalent long date string representation

C#

```
public static string ToLongDateString(string date);
```

Parameters

Parameters	Description
string date	The date.

Returns

A string containing the name of the day of the week, the name of the month, the numeric day of the month, and the year equivalent to the date value

1.1.4.1.3 CardDate.ToShortDateString Method

Converts the value from YYYYMMDD format to its equivalent short date string representation

C#

```
public static string ToShortDateString(string date);
```

Parameters

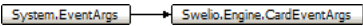
Parameters	Description
string date	The date.

Returns

A string containing the numeric month, the numeric day of the month, and the year equivalent to the date value

1.1.5 CardEventArgs Class

Inheritance Hierarchy



C#

```
public class CardEventArgs : EventArgs;
```

File

File: CardEventArgs.cs (🔗 see page 130)

Namespace: Swelio.Engine (🔗 see page 1)

Remarks

This is class Swelio.Engine.CardEventArgs.

Members


Methods

	Name	Description
🔗	CardEventArgs (🔗 see page 16)	Initializes a new instance of the CardEventArgs class.


CardEventArgs Properties

	Name	Description
🔗 R	ReaderNumber (🔗 see page 16)	Gets the reader number.

Methods

	Name	Description
	CardEventArgs (🔗 see page 16)	Initializes a new instance of the CardEventArgs class.

CardEventArgs Properties

	Name	Description
	ReaderNumber (🔗 see page 16)	Gets the reader number.

1.1.5.1 CardEventArgs.CardEventArgs Constructor

Initializes a new instance of the CardEventArgs (🔗 see page 15) class.

C#

```
public CardEventArgs (int readerNumber) ;
```

Parameters

Parameters	Description
int readerNumber	The reader number.

1.1.5.2 CardEventArgs Properties

1.1.5.2.1 CardEventArgs.ReaderNumber Property

Gets the reader number.

C#

```
public int ReaderNumber ;
```

Description

The reader number.

1.1.6 CardNumber Class

EID card number formatter. This class takes EID card number in raw form as input and return formatted EID card number

Inheritance Hierarchy



C#


```
public static class CardNumber ;
```

File


File: CardNumber.cs (🔗 see page 130)
Namespace: Swelio.Engine (🔗 see page 1)

Members

CardNumber Methods

	Name	Description
	ToString (🔗 see page 17)	Converts the value of the card number to its String representation

CardNumber Methods

	Name	Description
	<code>ToString</code> (see page 17)	Converts the value of the card number to its String representation

1.1.6.1 CardNumber Methods

1.1.6.1.1 CardNumber.ToString Method

Converts the value of the card number to its String representation

C#

```
public static string ToString(string cardNumber);
```

Parameters

Parameters	Description
<code>string cardNumber</code>	The unformatted card number

Returns

Formatted card number

1.1.7 CardReader Class

The physical smart card ([see page 19](#)) reader

Inheritance Hierarchy**C#**

```
public sealed class CardReader : IDisposable;
```

File

File: `CardReader.cs` ([see page 130](#))

Namespace: `Swelio.Engine` ([see page 1](#))




Members**Methods**

	Name	Description
	<code>CardReader</code> (see page 18)	Initializes a new instance of the <code>CardReader</code> class.

CardReader Fields







	Name	Description
	<code>card</code> (see page 19)	This is <code>card</code> , a member of class <code>CardReader</code> .

CardReader Methods


	Name	Description
	<code>ActivateCard</code> (see page 19)	Activates the card (see page 19).
	<code>DeactivateCard</code> (see page 19)	Deactivates the card (see page 19).
	<code>Dispose</code> (see page 19)	Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.

	GetCard (see page 19)	Gets the card (see page 19).
---	---	--

CardReader Properties

	Name	Description
	CardActivated (see page 20)	Gets a value indicating whether [card (see page 19) activated].
	CardPresent (see page 20)	Gets a value indicating whether [card (see page 19) present].
	Index (see page 20)	Gets the index of the smart card (see page 19) reader.
	Name (see page 20)	Gets the name of the smart card (see page 19) reader.
	Selected (see page 20)	Gets a value indicating whether this CardReader is selected.
	Tag (see page 21)	Gets or sets the tag.





Methods

	Name	Description
	CardReader (see page 18)	Initializes a new instance of the CardReader class.







CardReader Fields

	Name	Description
	card (see page 19)	This is card, a member of class CardReader.

CardReader Methods

	Name	Description
	ActivateCard (see page 19)	Activates the card (see page 19).
	DeactivateCard (see page 19)	Deactivates the card (see page 19).
	Dispose (see page 19)	Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.
	GetCard (see page 19)	Gets the card (see page 19).

CardReader Properties

	Name	Description
	CardActivated (see page 20)	Gets a value indicating whether [card (see page 19) activated].
	CardPresent (see page 20)	Gets a value indicating whether [card (see page 19) present].
	Index (see page 20)	Gets the index of the smart card (see page 19) reader.
	Name (see page 20)	Gets the name of the smart card (see page 19) reader.
	Selected (see page 20)	Gets a value indicating whether this CardReader is selected.
	Tag (see page 21)	Gets or sets the tag.

1.1.7.1 CardReader.CardReader Constructor

Initializes a new instance of the CardReader ([see page 17](#)) class.

C#

```
internal CardReader();
```

1.1.7.2 CardReader Fields

1.1.7.2.1 CardReader.card Field

C#

```
internal Card card;
```

Remarks

This is card, a member of class CardReader.

1.1.7.3 CardReader Methods

1.1.7.3.1 CardReader.ActivateCard Method

Activates the card (see page 19).

C#

```
public bool ActivateCard();
```

1.1.7.3.2 CardReader.DeactivateCard Method

Deactivates the card (see page 19).

C#

```
public void DeactivateCard();
```

1.1.7.3.3 Dispose Method

1.1.7.3.3.1 CardReader.Dispose Method ()

Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.

C#

```
public void Dispose();
```

1.1.7.3.3.2 CardReader.Dispose Method (bool)

Releases unmanaged and - optionally - managed resources

C#

```
internal void Dispose(bool disposing);
```

Parameters

Parameters	Description
bool disposing	true to release both managed and unmanaged resources; false to release only unmanaged resources.

1.1.7.3.4 GetCard Method

1.1.7.3.4.1 CardReader.GetCard Method ()

Gets the card (see page 19).

C#

```
public Card GetCard();
```

1.1.7.3.4.2 CardReader.GetCard Method (bool)

Gets the card (see page 19).

```
C#
public Card GetCard(bool activate);
```

Parameters

Parameters	Description
bool activate	if set to true [activate].

1.1.7.4 CardReader Properties

1.1.7.4.1 CardReader.CardActivated Property

Gets a value indicating whether [card (see page 19) activated].

```
C#
public bool CardActivated;
```

Description

true if [card (see page 19) activated]; otherwise, false.

1.1.7.4.2 CardReader.CardPresent Property

Gets a value indicating whether [card (see page 19) present].

```
C#
public bool CardPresent;
```

Description

true if [card (see page 19) present]; otherwise, false.

1.1.7.4.3 CardReader.Index Property

Gets the index of the smart card (see page 19) reader.

```
C#
public int Index;
```

1.1.7.4.4 CardReader.Name Property

Gets the name of the smart card (see page 19) reader.

```
C#
public string Name;
```

1.1.7.4.5 CardReader.Selected Property

Gets a value indicating whether this CardReader (see page 17) is selected.

```
C#
public bool Selected;
```

Description

true if selected; otherwise, false.

1.1.7.4.6 CardReader.Tag Property

Gets or sets the tag.

C#

```
public int Tag;
```

Description

The tag.

1.1.8 DocumentContainer Class

ASiC document container. Associated Signature Containers (ASiC) specifies the use of container structures to bind together one or more signed objects with either advanced electronic signatures or timestamp tokens into one single digital container.

Inheritance Hierarchy

Swelio.Engine.DocumentContainer

C#

```
public class DocumentContainer;
```

File










File: DocumentContainer.cs (see page 131)

Namespace: Swelio.Engine (see page 1)


Members**Methods**

	Name	Description
	DocumentContainer (see page 22)	Initializes a new instance of the DocumentContainer class.










DocumentContainer Methods

	Name	Description
	AddFile (see page 22)	Add file to the container
	Close (see page 22)	Closes container. No any future calls are possible after closing container
	GetError (see page 22)	This is GetError, a member of class DocumentContainer.
	GetErrorsCount (see page 23)	This is GetErrorsCount, a member of class DocumentContainer.
	Save (see page 23)	Saves container to the file with specified file name. By default the file extension for ASiC containers is asice.
	SelectCertificate (see page 23)	Selects the certificate.
	SetCanonization (see page 24)	This is SetCanonization, a member of class DocumentContainer.
	SetTimeServer (see page 24)	This is SetTimeServer, a member of class DocumentContainer.
	Verify (see page 24)	This is Verify, a member of class DocumentContainer.

Methods

	Name	Description
	DocumentContainer (see page 22)	Initializes a new instance of the DocumentContainer class.

DocumentContainer Methods

	Name	Description
	AddFile (see page 22)	Add file to the container
	Close (see page 22)	Closes container. No any future calls are possible after closing container
	GetError (see page 22)	This is GetError, a member of class DocumentContainer.
	GetErrorsCount (see page 23)	This is GetErrorsCount, a member of class DocumentContainer.
	Save (see page 23)	Saves container to the file with specified file name. By default the file extension for ASIC containers is asice.
	SelectCertificate (see page 23)	Selects the certificate.
	SetCanonization (see page 24)	This is SetCanonization, a member of class DocumentContainer.
	SetTimeServer (see page 24)	This is SetTimeServer, a member of class DocumentContainer.
	Verify (see page 24)	This is Verify, a member of class DocumentContainer.

1.1.8.1 DocumentContainer.DocumentContainer Constructor

Initializes a new instance of the DocumentContainer ([see page 21](#)) class.

C#

```
public DocumentContainer() ;
```

1.1.8.2 DocumentContainer Methods

1.1.8.2.1 DocumentContainer.AddFile Method

Add file to the container

C#

```
public bool AddFile(string fileName) ;
```

Parameters

Parameters	Description
string fileName	The name of the file

1.1.8.2.2 DocumentContainer.Close Method

Closes container. No any future calls are possible after closing container

C#

```
public void Close() ;
```

1.1.8.2.3 DocumentContainer.GetError Method

C#

```
public string GetError(int index) ;
```

Remarks

This is GetError, a member of class DocumentContainer.

1.1.8.2.4 DocumentContainer.GetErrorsCount Method

C#

```
public int GetErrorsCount();
```

Remarks

This is GetErrorsCount, a member of class DocumentContainer.

1.1.8.2.5 DocumentContainer.Save Method

Saves container to the file with specified file name. By default the file extension for ASIC containers is asice.

C#

```
public bool Save(string fileName, int readerNumber);
```

Parameters

Parameters	Description
string fileName	Name of the file.
int readerNumber	The EID card reader number.

Returns

true, if success; otherwise - false.

1.1.8.2.6 SelectCertificate Method

1.1.8.2.6.1 DocumentContainer.SelectCertificate Method ()

Selects the certificate.

C#

```
public bool SelectCertificate();
```

Returns

True - if certificate is selected, otherwise - false

1.1.8.2.6.2 DocumentContainer.SelectCertificate Method (int)

Selects the certificate.

C#

```
public bool SelectCertificate(int readerNumber);
```

Parameters

Parameters	Description
int readerNumber	The reader number.

Returns

True - if certificate is selected, otherwise - false

1.1.8.2.6.3 DocumentContainer.SelectCertificate Method (string, string)

Selects the certificate.

C#

```
public bool SelectCertificate(string fileName, string password);
```

Parameters

Parameters	Description
string fileName	Name of the certificate file in pfx format
string password	The password.

Returns

True - if certificate is selected, otherwise - false

1.1.8.2.7 DocumentContainer.SetCanonization Method

C#

```
public bool SetCanonization(string canonization);
```

Remarks

This is SetCanonization, a member of class DocumentContainer.

1.1.8.2.8 DocumentContainer.SetTimeServer Method

C#

```
public bool SetTimeServer(string timeServer);
```

Remarks

This is SetTimeServer, a member of class DocumentContainer.

1.1.8.2.9 DocumentContainer.Verify Method

C#

```
public bool Verify(string fileName);
```

Remarks

This is Verify, a member of class DocumentContainer.

1.1.9 EIDAddress Class

EID address information, stored on the card

Inheritance Hierarchy

Swelio.Engine.EIDAddress

C#

```
[StructLayout(LayoutKind.Sequential, CharSet = CharSet.Unicode)]  
[BestFitMapping(false, ThrowOnUnmappableChar = true)]  
internal class EIDAddress;
```




File

File: NativeTypes.cs (see page 133)




Namespace: Swelio.Engine (see page 1)

Members

EIDAddress Fields

	Name	Description
	municipality (see page 25)	Municipality
	street (see page 25)	Street name
	zip (see page 25)	ZIP code

EIDAddress Fields

	Name	Description
	municipality (see page 25)	Municipality
	street (see page 25)	Street name
	zip (see page 25)	ZIP code

1.1.9.1 EIDAddress Fields

1.1.9.1.1 EIDAddress.municipality Field

Municipality

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxMunicipalityName + 1)]
internal string municipality;
```

1.1.9.1.2 EIDAddress.street Field

Street name

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxStreetNameLen + 1)]
internal string street;
```

1.1.9.1.3 EIDAddress.zip Field

ZIP code

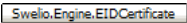
C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxZipLen + 1)]
internal string zip;
```

1.1.10 EIDCertificate Class

Certificate, stored on EID card

Inheritance Hierarchy



C#

```
[StructLayout(LayoutKind.Sequential, CharSet = CharSet.Unicode)]
internal class EIDCertificate;
```

File

File: NativeTypes.cs (see page 133)

Namespace: Swelio.Engine (🔗 see page 1)

Members

EIDCertificate Fields

	Name	Description
🔗	certificate (🔗 see page 26)	Certificate raw data buffer
🔗	certificateLength (🔗 see page 26)	Certificate data length

EIDCertificate Fields

	Name	Description
🔗	certificate (🔗 see page 26)	Certificate raw data buffer
🔗	certificateLength (🔗 see page 26)	Certificate data length

1.1.10.1 EIDCertificate Fields

1.1.10.1.1 EIDCertificate.certificate Field

Certificate raw data buffer

C#

```
[MarshalAs(UnmanagedType.ByValArray, SizeConst = EIDDataLength.EidMaxCertLen + 1)]
internal byte[] certificate;
```

1.1.10.1.2 EIDCertificate.certificateLength Field

Certificate data length

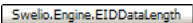
C#

```
[MarshalAs(UnmanagedType.I4)]
internal int certificateLength;
```

1.1.11 EIDDataLength Class

Maximum length of EID fields

Inheritance Hierarchy



C#

```
internal static class EIDDataLength;
```

File

File: NativeTypes.cs (🔗 see page 133)

Namespace: Swelio.Engine (🔗 see page 1)


















Members















EIDDataLength Fields

	Name	Description
🔗	EidMaxBirthDateLen (🔗 see page 28)	Max length of the birthdate
🔗	EidMaxBirthplaceLen (🔗 see page 28)	Max length of the birthplace
🔗	EidMaxBrexitMention1Len (🔗 see page 28)	BREXIT mention

	EidMaxBrexItMention2Len (see page 28)	BREXIT mention
	EidMaxCardNumberLen (see page 28)	Max length of the card number field
	EidMaxCertLen (see page 29)	Max length of the certificate data
	EidMaxChipNumberLen (see page 29)	Max length of the chip number field
	EidMaxDateAndCountryOfProtectionLen (see page 29)	Date and country of protection
	EidMaxDateBeginLen (see page 29)	Max length of the begin date field
	EidMaxDateEndLen (see page 29)	Max length of the end date field
	EidMaxDeliveryMunicipalityLen (see page 29)	Max length of the name of the delivery municipality
	EidMaxDocumentTypeLen (see page 29)	Max length of the document type field
	EidMaxDuplicateLen (see page 29)	Duplicate
	EidMaxFirstNameLen (see page 30)	Max length of the first name
	EidMaxMemberOfFamilyLen (see page 30)	Member of family
	EidMaxMiddleNameLen (see page 30)	Max length of the first name
	EidMaxMunicipalityName (see page 30)	Max length of the municipality name field
	EidMaxNameLen (see page 30)	Max length of the surname
	EidMaxNationalNumberLen (see page 30)	Max length of the national number
	EidMaxNationalityLen (see page 30)	Max length of the nationality
	EidMaxNobleConditionLen (see page 30)	Max length of the noble condition field
	EidMaxPictureLen (see page 31)	Max length of the picture data
	EidMaxRegionalFileNumberLen (see page 31)	Regional file number
	EidMaxSexLen (see page 31)	Max length of the sex field
	EidMaxSpecialOrganizationLen (see page 31)	Special organization
	EidMaxSpecialStatusLen (see page 31)	Max length of the special status field
	EidMaxStreetNameLen (see page 31)	Max length of the street name field
	EidMaxVAT1Len (see page 31)	VAT1
	EidMaxVAT2Len (see page 32)	VAT2
	EidMaxWorkPermitTypeLen (see page 32)	The type of the workpermit
	EidMaxZipLen (see page 32)	Max length of the ZIP code field

EIDDataLength Fields

	Name	Description
	EidMaxBirthDateLen (see page 28)	Max length of the birthdate
	EidMaxBirthplaceLen (see page 28)	Max length of the birthplace
	EidMaxBrexItMention1Len (see page 28)	BREXIT mention
	EidMaxBrexItMention2Len (see page 28)	BREXIT mention
	EidMaxCardNumberLen (see page 28)	Max length of the card number field
	EidMaxCertLen (see page 29)	Max length of the certificate data
	EidMaxChipNumberLen (see page 29)	Max length of the chip number field
	EidMaxDateAndCountryOfProtectionLen (see page 29)	Date and country of protection
	EidMaxDateBeginLen (see page 29)	Max length of the begin date field
	EidMaxDateEndLen (see page 29)	Max length of the end date field
	EidMaxDeliveryMunicipalityLen (see page 29)	Max length of the name of the delivery municipality
	EidMaxDocumentTypeLen (see page 29)	Max length of the document type field
	EidMaxDuplicateLen (see page 29)	Duplicate
	EidMaxFirstNameLen (see page 30)	Max length of the first name
	EidMaxMemberOfFamilyLen (see page 30)	Member of family
	EidMaxMiddleNameLen (see page 30)	Max length of the first name
	EidMaxMunicipalityName (see page 30)	Max length of the municipality name field

	EidMaxNameLen (see page 30)	Max length of the surname
	EidMaxNationalNumberLen (see page 30)	Max length of the national number
	EidMaxNationalityLen (see page 30)	Max length of the nationality
	EidMaxNobleConditionLen (see page 30)	Max length of the noble condition field
	EidMaxPictureLen (see page 31)	Max length of the picture data
	EidMaxRegionalFileNumberLen (see page 31)	Regional file number
	EidMaxSexLen (see page 31)	Max length of the sex field
	EidMaxSpecialOrganizationLen (see page 31)	Special organization
	EidMaxSpecialStatusLen (see page 31)	Max length of the special status field
	EidMaxStreetNameLen (see page 31)	Max length of the street name field
	EidMaxVAT1Len (see page 31)	VAT1
	EidMaxVAT2Len (see page 32)	VAT2
	EidMaxWorkPermitTypeLen (see page 32)	The type of the workpermit
	EidMaxZipLen (see page 32)	Max length of the ZIP code field

1.1.11.1 EIDDataLength Fields

1.1.11.1.1 EIDDataLength.EidMaxBirthDateLen Field

Max length of the birthdate

C#

```
public const int EidMaxBirthDateLen = 12;
```

1.1.11.1.2 EIDDataLength.EidMaxBirthplaceLen Field

Max length of the birthplace

C#

```
public const int EidMaxBirthplaceLen = 80;
```

1.1.11.1.3 EIDDataLength.EidMaxBrexitMention1Len Field

C#

```
public const int EidMaxBrexitMention1Len = 1;
```

Remarks

BREXIT mention

1.1.11.1.4 EIDDataLength.EidMaxBrexitMention2Len Field

C#

```
public const int EidMaxBrexitMention2Len = 1;
```

Remarks

BREXIT mention

1.1.11.1.5 EIDDataLength.EidMaxCardNumberLen Field

Max length of the card number field

C#

```
public const int EidMaxCardNumberLen = 12;
```

1.1.11.1.6 EIDDataLength.EidMaxCertLen Field

Max length of the certificate data

C#

```
public const int EidMaxCertLen = 2048;
```

1.1.11.1.7 EIDDataLength.EidMaxChipNumberLen Field

Max length of the chip number field

C#

```
public const int EidMaxChipNumberLen = 32;
```

1.1.11.1.8 EIDDataLength.EidMaxDateAndCountryOfProtectionLen Field

C#

```
public const int EidMaxDateAndCountryOfProtectionLen = 13;
```

Remarks

Date and country of protection

1.1.11.1.9 EIDDataLength.EidMaxDateBeginLen Field

Max length of the begin date field

C#

```
public const int EidMaxDateBeginLen = 10;
```

1.1.11.1.10 EIDDataLength.EidMaxDateEndLen Field

Max length of the end date field

C#

```
public const int EidMaxDateEndLen = 10;
```

1.1.11.1.11 EIDDataLength.EidMaxDeliveryMunicipalityLen Field

Max length of the name of the delivery municipality

C#

```
public const int EidMaxDeliveryMunicipalityLen = 80;
```

1.1.11.1.12 EIDDataLength.EidMaxDocumentTypeLen Field

Max length of the document type field

C#

```
public const int EidMaxDocumentTypeLen = 2;
```

1.1.11.1.13 EIDDataLength.EidMaxDuplicateLen Field

C#

```
public const int EidMaxDuplicateLen = 2;
```

Remarks

Duplicate

1.1.11.1.14 EIDDataLength.EidMaxFirstNameLen Field

Max length of the first name

C#

```
public const int EidMaxFirstNameLen = 95;
```

1.1.11.1.15 EIDDataLength.EidMaxMemberOfFamilyLen Field**C#**

```
public const int EidMaxMemberOfFamilyLen = 1;
```

Remarks

Member of family

1.1.11.1.16 EIDDataLength.EidMaxMiddleNameLen Field

Max length of the first name

C#

```
public const int EidMaxMiddleNameLen = 3;
```

1.1.11.1.17 EIDDataLength.EidMaxMunicipalityName Field

Max length of the municipality name field

C#

```
public const int EidMaxMunicipalityName = 67;
```

1.1.11.1.18 EIDDataLength.EidMaxNameLen Field

Max length of the surname

C#

```
public const int EidMaxNameLen = 110;
```

1.1.11.1.19 EIDDataLength.EidMaxNationalNumberLen Field

Max length of the national number

C#

```
public const int EidMaxNationalNumberLen = 11;
```

1.1.11.1.20 EIDDataLength.EidMaxNationalityLen Field

Max length of the nationality

C#

```
public const int EidMaxNationalityLen = 85;
```

1.1.11.1.21 EIDDataLength.EidMaxNobleConditionLen Field

Max length of the noble condition field

C#

```
public const int EidMaxNobleConditionLen = 50;
```

1.1.11.1.22 EIDDataLength.EidMaxPictureLen Field

Max length of the picture data

C#

```
public const int EidMaxPictureLen = 4096;
```

1.1.11.1.23 EIDDataLength.EidMaxRegionalFileNumberLen Field

C#

```
public const int EidMaxRegionalFileNumberLen = 18;
```

Remarks

Regional file number

1.1.11.1.24 EIDDataLength.EidMaxSexLen Field

Max length of the sex field

C#

```
public const int EidMaxSexLen = 1;
```

1.1.11.1.25 EIDDataLength.EidMaxSpecialOrganizationLen Field

C#

```
public const int EidMaxSpecialOrganizationLen = 1;
```

Remarks

Special organization

1.1.11.1.26 EIDDataLength.EidMaxSpecialStatusLen Field

Max length of the special status field

C#

```
public const int EidMaxSpecialStatusLen = 2;
```

1.1.11.1.27 EIDDataLength.EidMaxStreetNameLen Field

Max length of the street name field

C#

```
public const int EidMaxStreetNameLen = 80;
```

1.1.11.1.28 EIDDataLength.EidMaxVAT1Len Field

C#

```
public const int EidMaxVAT1Len = 13;
```

Remarks

VAT1

1.1.11.1.29 EIDDataLength.EidMaxVAT2Len Field

C#

```
public const int EidMaxVAT2Len = 13;
```

Remarks

VAT2

1.1.11.1.30 EIDDataLength.EidMaxWorkPermitTypeLen Field

C#

```
public const int EidMaxWorkPermitTypeLen = 1;
```

Remarks

The type of the workpermit

1.1.11.1.31 EIDDataLength.EidMaxZipLen Field

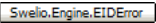
Max length of the ZIP code field

C#

```
public const int EidMaxZipLen = 4;
```

1.1.12 EIDError Class

Inheritance Hierarchy



C#

```
[StructLayout(LayoutKind.Sequential, CharSet = CharSet.Unicode)]
internal class EIDError;
```

File

File: NativeTypes.cs (🔗 see page 133)

Namespace: Swelio.Engine (🔗 see page 1)

Remarks

This is class Swelio.Engine.EIDError.

Members

EIDError Fields

	Name	Description
🔗	Code (🔗 see page 33)	This is Code, a member of class EIDError.
🔗	Description (🔗 see page 33)	This is Description, a member of class EIDError.

EIDError Fields

	Name	Description
🔗	Code (🔗 see page 33)	This is Code, a member of class EIDError.
🔗	Description (🔗 see page 33)	This is Description, a member of class EIDError.

1.1.12.1 EIDError Fields

1.1.12.1.1 EIDError.Code Field

C#

```
internal int Code;
```

Remarks

This is Code, a member of class EIDError.

1.1.12.1.2 EIDError.Description Field

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = 255)]
internal string Description;
```

Remarks

This is Description, a member of class EIDError.

1.1.13 EIDIdentity Class

Identity (see page 54) information stored on EID card

Inheritance Hierarchy

```
Swelio.Engine.EIDIdentity
```

C#

```
[StructLayout(LayoutKind.Sequential, CharSet = CharSet.Unicode)]
[BestFitMapping(false, ThrowOnUnmappableChar = true)]
internal class EIDIdentity;
```










File




















File: NativeTypes.cs (see page 133)

Namespace: Swelio.Engine (see page 1)



























Members



EIDIdentity Fields

	Name	Description
	birthDate (see page 35)	Birth date
	birthLocation (see page 35)	Birth location
	brexitMention1 (see page 35)	This is brexitMention1, a member of class EIDIdentity.
	brexitMention2 (see page 35)	This is brexitMention2, a member of class EIDIdentity.
	cardNumber (see page 35)	Electronic ID card number
	chipNumber (see page 35)	Electronic ID card physical chip number
	dateAndCountryOfProtection (see page 36)	This is dateAndCountryOfProtection, a member of class EIDIdentity.
	documentType (see page 36)	Document type (Belgian citizen, European Community citizen, ...)
	duplicate (see page 36)	This is duplicate, a member of class EIDIdentity.

	extendedMinority (see page 36)	Extended minority
	firstName1 (see page 36)	First name (see page 37)
	firstName2 (see page 36)	First name (see page 37)
	memberOfFamily (see page 36)	This is memberOfFamily, a member of class EIDIdentity.
	municipality (see page 37)	Card (see page 7) delivery municipality
	name (see page 37)	Surname
	nationalNumber (see page 37)	National number
	nationality (see page 37)	Nationality
	nobleCondition (see page 37)	Noble condition
	regionalFileNumber (see page 37)	This is regionalFileNumber, a member of class EIDIdentity.
	sex (see page 37)	Sex
	specialOrganization (see page 38)	This is specialOrganization, a member of class EIDIdentity.
	validityDateBegin (see page 38)	Card (see page 7) validity date begin
	validityDateEnd (see page 38)	Card (see page 7) validity date end
	vat1 (see page 38)	This is vat1, a member of class EIDIdentity.
	vat2 (see page 38)	This is vat2, a member of class EIDIdentity.
	whiteCane (see page 38)	White cane allowed (blind people)
	workPermitType (see page 39)	This is workPermitType, a member of class EIDIdentity.
	yellowCane (see page 39)	Yellow cane allowed (partially sighted people)

EIDIdentity Fields

	Name	Description
	birthDate (see page 35)	Birth date
	birthLocation (see page 35)	Birth location
	brexitMention1 (see page 35)	This is brexitMention1, a member of class EIDIdentity.
	brexitMention2 (see page 35)	This is brexitMention2, a member of class EIDIdentity.
	cardNumber (see page 35)	Electronic ID card number
	chipNumber (see page 35)	Electronic ID card physical chip number
	dateAndCountryOfProtection (see page 36)	This is dateAndCountryOfProtection, a member of class EIDIdentity.
	documentType (see page 36)	Document type (Belgian citizen, European Community citizen, ...)
	duplicate (see page 36)	This is duplicate, a member of class EIDIdentity.
	extendedMinority (see page 36)	Extended minority
	firstName1 (see page 36)	First name (see page 37)
	firstName2 (see page 36)	First name (see page 37)
	memberOfFamily (see page 36)	This is memberOfFamily, a member of class EIDIdentity.
	municipality (see page 37)	Card (see page 7) delivery municipality
	name (see page 37)	Surname
	nationalNumber (see page 37)	National number
	nationality (see page 37)	Nationality
	nobleCondition (see page 37)	Noble condition
	regionalFileNumber (see page 37)	This is regionalFileNumber, a member of class EIDIdentity.
	sex (see page 37)	Sex
	specialOrganization (see page 38)	This is specialOrganization, a member of class EIDIdentity.
	validityDateBegin (see page 38)	Card (see page 7) validity date begin
	validityDateEnd (see page 38)	Card (see page 7) validity date end
	vat1 (see page 38)	This is vat1, a member of class EIDIdentity.
	vat2 (see page 38)	This is vat2, a member of class EIDIdentity.
	whiteCane (see page 38)	White cane allowed (blind people)

	workPermitType (see page 39)	This is workPermitType, a member of class EIDIdentity.
	yellowCane (see page 39)	Yellow cane allowed (partially sighted people)

1.1.13.1 EIDIdentity Fields

1.1.13.1.1 EIDIdentity.birthDate Field

Birth date

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxBirthDateLen + 1)]
internal string birthDate;
```

1.1.13.1.2 EIDIdentity.birthLocation Field

Birth location

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxBirthplaceLen + 1)]
internal string birthLocation;
```

1.1.13.1.3 EIDIdentity.brexitMention1 Field

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxBrexitMention1Len + 1)]
internal string brexitMention1;
```

Remarks

This is brexitMention1, a member of class EIDIdentity.

1.1.13.1.4 EIDIdentity.brexitMention2 Field

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxBrexitMention2Len + 1)]
internal string brexitMention2;
```

Remarks

This is brexitMention2, a member of class EIDIdentity.

1.1.13.1.5 EIDIdentity.cardNumber Field

Electronic ID card number

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxCardNumberLen + 1)]
internal string cardNumber;
```

1.1.13.1.6 EIDIdentity.chipNumber Field

Electronic ID card physical chip number

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxChipNumberLen + 1)]
internal string chipNumber;
```

1.1.13.1.7 EIDIdentity.dateAndCountryOfProtection Field

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst =  
EIDDataLength.EidMaxDateAndCountryOfProtectionLen + 1)]  
internal string dateAndCountryOfProtection;
```

Remarks

This is dateAndCountryOfProtection, a member of class EIDIdentity.

1.1.13.1.8 EIDIdentity.documentType Field

Document type (Belgian citizen, European Community citizen, ...)

C#

```
[MarshalAs(UnmanagedType.I4)]  
internal int documentType;
```

1.1.13.1.9 EIDIdentity.duplicate Field

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxDuplicateLen + 1)]  
internal string duplicate;
```

Remarks

This is duplicate, a member of class EIDIdentity.

1.1.13.1.10 EIDIdentity.extendedMinority Field

Extended minority

C#

```
[MarshalAs(UnmanagedType.Bool)]  
internal bool extendedMinority;
```

1.1.13.1.11 EIDIdentity.firstName1 Field

First name (see page 37)

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxFirstNameLen + 1)]  
internal string firstName1;
```

1.1.13.1.12 EIDIdentity.firstName2 Field

First name (see page 37)

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxMiddleNameLen + 1)]  
internal string firstName2;
```

1.1.13.1.13 EIDIdentity.memberOfFamily Field

C#

```
[MarshalAs(UnmanagedType.Bool)]  
internal bool memberOfFamily;
```

Remarks

This is memberOfFamily, a member of class EIDIdentity.

1.1.13.1.14 EIDIdentity.municipality Field

Card (see page 7) delivery municipality

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxDeliveryMunicipalityLen + 1)]  
internal string municipality;
```

1.1.13.1.15 EIDIdentity.name Field

Surname

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxNameLen + 1)]  
internal string name;
```

1.1.13.1.16 EIDIdentity.nationalNumber Field

National number

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxNationalNumberLen + 1)]  
internal string nationalNumber;
```

1.1.13.1.17 EIDIdentity.nationality Field

Nationality

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxNationalityLen + 1)]  
internal string nationality;
```

1.1.13.1.18 EIDIdentity.nobleCondition Field

Noble condition

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxNobleConditionLen + 1)]  
internal string nobleCondition;
```

1.1.13.1.19 EIDIdentity.regionalFileNumber Field**C#**

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxRegionalFileNumberLen + 1)]  
internal string regionalFileNumber;
```

Remarks

This is regionalFileNumber, a member of class EIDIdentity.

1.1.13.1.20 EIDIdentity.sex Field

Sex

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxSexLen + 1)]  
internal string sex;
```

1.1.13.1.21 EIDIdentity.specialOrganization Field

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxSpecialOrganizationLen  
+ 1)]  
internal string specialOrganization;
```

Remarks

This is specialOrganization, a member of class EIDIdentity.

1.1.13.1.22 EIDIdentity.validityDateBegin Field

Card (see page 7) validity date begin

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxDateBeginLen + 1)]  
internal string validityDateBegin;
```

1.1.13.1.23 EIDIdentity.validityDateEnd Field

Card (see page 7) validity date end

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxDateEndLen + 1)]  
internal string validityDateEnd;
```

1.1.13.1.24 EIDIdentity.vat1 Field

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxVAT1Len + 1)]  
internal string vat1;
```

Remarks

This is vat1, a member of class EIDIdentity.

1.1.13.1.25 EIDIdentity.vat2 Field

C#

```
[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxVAT2Len + 1)]  
internal string vat2;
```

Remarks

This is vat2, a member of class EIDIdentity.

1.1.13.1.26 EIDIdentity.whiteCane Field

White cane allowed (blind people)

C#

```
[MarshalAs(UnmanagedType.Bool)]  
internal bool whiteCane;
```

1.1.13.1.27 EIDIdentity.workPermitType Field

C#

[MarshalAs(UnmanagedType.ByValTStr, SizeConst = EIDDataLength.EidMaxWorkPermitTypeLen + 1)]
internal string workPermitType;

Remarks

This is workPermitType, a member of class EIDIdentity.

1.1.13.1.28 EIDIdentity.yellowCane Field

Yellow cane allowed (partially sighted people)

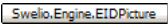
C#

[MarshalAs(UnmanagedType.Bool)]
internal bool yellowCane;

1.1.14 EIDPicture Class

Raw picture (see page 39) data from EID card

Inheritance Hierarchy



C#

[StructLayout(LayoutKind.Sequential, CharSet = CharSet.Unicode)]
internal class EIDPicture;

File

- File: NativeTypes.cs (see page 133)
- Namespace: Swelio.Engine (see page 1)

Members

EIDPicture Fields

	Name	Description
	picture (see page 39)	Picture raw data buffer
	pictureLength (see page 40)	Picture raw data buffer length

EIDPicture Fields

	Name	Description
	picture (see page 39)	Picture raw data buffer
	pictureLength (see page 40)	Picture raw data buffer length

1.1.14.1 EIDPicture Fields

1.1.14.1.1 EIDPicture.picture Field

Picture raw data buffer

C#

[MarshalAs(UnmanagedType.ByValArray, SizeConst = EIDDataLength.EidMaxPictureLen + 1)]

```
internal byte[] picture;
```

1.1.14.1.2 EIDPicture.pictureLength Field

Picture raw data buffer length

C#

```
[MarshalAs (UnmanagedType.I4)]
internal int pictureLength;
```

1.1.15 Encryption Class

Inheritance Hierarchy

```
Swelio.Engine.Encryption
```

C#

```
public static class Encryption;
```




















File

File: Encryption.cs ([see page 131](#))



Namespace: Swelio.Engine ([see page 1](#))


















Members

Encryption Methods

	Name	Description
	CheckFileMD5 (see page 41)	Checks the file M d5.
	CheckFileSHA1 (see page 41)	Checks the file SH a1.
	CheckMD5 (see page 41)	Checks the M d5.
	CheckSHA1 (see page 42)	Checks the SH a1.
	DecryptFile (see page 42)	Decrypts the file.
	EncryptFile (see page 43)	Encrypts the file.
	GenerateAuthenticationSignature (see page 43)	Generates the authentication signature.
	GenerateNonRepudiationSignature (see page 44)	Generates the non repudiation signature.
	GetFileMD5 (see page 44)	Gets the file M d5.
	GetFileSHA1 (see page 44)	Gets the file SH a1.
	GetFileSHA256 (see page 45)	This is GetFileSHA256, a member of class Encryption.
	GetFileSHA384 (see page 45)	This is GetFileSHA384, a member of class Encryption.
	GetFileSHA512 (see page 45)	This is GetFileSHA512, a member of class Encryption.
	GetMD5 (see page 45)	Gets the M d5.
	GetSHA1 (see page 46)	Gets the SH a1.
	GetSHA256 (see page 46)	This is GetSHA256, a member of class Encryption.
	GetSHA384 (see page 46)	This is GetSHA384, a member of class Encryption.
	GetSHA512 (see page 46)	This is GetSHA512, a member of class Encryption.
	VerifySignature (see page 46)	Verifies the signature.

Encryption Methods

	Name	Description
	CheckFileMD5 (see page 41)	Checks the file M d5.
	CheckFileSHA1 (see page 41)	Checks the file SH a1.

	CheckMD5 (see page 41)	Checks the M d5.
	CheckSHA1 (see page 42)	Checks the SH a1.
	DecryptFile (see page 42)	Decrypts the file.
	EncryptFile (see page 43)	Encrypts the file.
	GenerateAuthenticationSignature (see page 43)	Generates the authentication signature.
	GenerateNonRepudiationSignature (see page 44)	Generates the non repudiation signature.
	GetFileMD5 (see page 44)	Gets the file M d5.
	GetFileSHA1 (see page 44)	Gets the file SH a1.
	GetFileSHA256 (see page 45)	This is GetFileSHA256, a member of class Encryption.
	GetFileSHA384 (see page 45)	This is GetFileSHA384, a member of class Encryption.
	GetFileSHA512 (see page 45)	This is GetFileSHA512, a member of class Encryption.
	GetMD5 (see page 45)	Gets the M d5.
	GetSHA1 (see page 46)	Gets the SH a1.
	GetSHA256 (see page 46)	This is GetSHA256, a member of class Encryption.
	GetSHA384 (see page 46)	This is GetSHA384, a member of class Encryption.
	GetSHA512 (see page 46)	This is GetSHA512, a member of class Encryption.
	VerifySignature (see page 46)	Verifies the signature.

1.1.15.1 Encryption Methods

1.1.15.1.1 Encryption.CheckFileMD5 Method

Checks the file M d5.

C#

```
public static bool CheckFileMD5(string fileName, byte[] md5sum);
```

Parameters

Parameters	Description
string fileName	Name of the file.
byte[] md5sum	The md5sum.

1.1.15.1.2 Encryption.CheckFileSHA1 Method

Checks the file SH a1.

C#

```
public static bool CheckFileSHA1(string fileName, byte[] sha1sum);
```

Parameters

Parameters	Description
string fileName	Name of the file.
byte[] sha1sum	The sha1sum.

1.1.15.1.3 CheckMD5 Method

1.1.15.1.3.1 Encryption.CheckMD5 Method (byte[], byte[])

Checks the M d5.

C#

```
public static bool CheckMD5(byte[] message, byte[] md5sum);
```

Parameters

Parameters	Description
byte[] message	The message.
byte[] md5sum	The md5sum.

1.1.15.1.3.2 Encryption.CheckMD5 Method (string, byte[])

Checks MD5.

C#

```
public static bool CheckMD5(string message, byte[] md5sum);
```

Parameters

Parameters	Description
string message	The message.
byte[] md5sum	The md5sum.

1.1.15.1.4 CheckSHA1 Method

1.1.15.1.4.1 Encryption.CheckSHA1 Method (byte[], byte[])

Checks the SH a1.

C#

```
public static bool CheckSHA1(byte[] message, byte[] sha1sum);
```

Parameters

Parameters	Description
byte[] message	The message.
byte[] sha1sum	The sha1sum.

1.1.15.1.4.2 Encryption.CheckSHA1 Method (string, byte[])

Checks SHA1.

C#

```
public static bool CheckSHA1(string message, byte[] sha1sum);
```

Parameters

Parameters	Description
string message	The message.
byte[] sha1sum	The sha1sum.

1.1.15.1.5 DecryptFile Method

1.1.15.1.5.1 Encryption.DecryptFile Method (CardReader, string, string)

Decrypts the file.

C#

```
public static bool DecryptFile(CardReader reader, string source, string destination);
```

Parameters

Parameters	Description
CardReader reader	The reader.
string source	The source.
string destination	The destination.

1.1.15.1.5.2 Encryption.DecryptFile Method (string, string, string)

Decrypts the file.

C#

```
public static bool DecryptFile(string sourceFileName, string destinationFileName, string password);
```

Parameters

Parameters	Description
string sourceFileName	Name of the source file.
string destinationFileName	Name of the destination file.
string password	The password.

1.1.15.1.6 EncryptFile Method**1.1.15.1.6.1 Encryption.EncryptFile Method (CardReader, string, string)**

Encrypts the file.

C#

```
public static bool EncryptFile(CardReader reader, string source, string destination);
```

Parameters

Parameters	Description
CardReader reader	The reader.
string source	The source.
string destination	The destination.

1.1.15.1.6.2 Encryption.EncryptFile Method (string, string, string)

Encrypts the file.

C#

```
public static bool EncryptFile(string sourceFileName, string destinationFileName, string password);
```

Parameters

Parameters	Description
string sourceFileName	Name of the source file.
string destinationFileName	Name of the destination file.
string password	The password.

1.1.15.1.7 Encryption.GenerateAuthenticationSignature Method

Generates the authentication signature.

C#

```
public static byte[] GenerateAuthenticationSignature(CardReader reader, string pinCode,
```

```
byte[] dataHash, int hashSize);
```

Parameters

Parameters	Description
CardReader reader	The reader.
string pinCode	The pin code.
byte[] dataHash	The data hash.
int hashSize	Size of the hash.

1.1.15.1.8 GenerateNonRepudiationSignature Method

1.1.15.1.8.1 Encryption.GenerateNonRepudiationSignature Method (CardReader, string, byte[], int)

Generates the non repudiation signature.

C#

```
public static byte[] GenerateNonRepudiationSignature(CardReader reader, string pinCode, byte[] dataHash, int hashSize);
```

Parameters

Parameters	Description
CardReader reader	The reader.
string pinCode	The pin code.
byte[] dataHash	The data hash.
int hashSize	Size of the hash.

1.1.15.1.8.2 Encryption.GenerateNonRepudiationSignature Method (CardReader, string, byte[], int, byte)

C#

```
public static byte[] GenerateNonRepudiationSignature(CardReader reader, string pinCode, byte[] dataHash, int hashSize, byte algorithm);
```

Remarks

This is GenerateNonRepudiationSignature, a member of class Encryption.

1.1.15.1.9 Encryption.GetFilesMD5 Method

Gets the file M d5.

C#

```
public static byte[] GetFilesMD5(string fileName);
```

Parameters

Parameters	Description
string fileName	Name of the file.

1.1.15.1.10 Encryption.GetFilesSHA1 Method

Gets the file SH a1.

C#

```
public static byte[] GetFilesSHA1(string fileName);
```

Parameters

Parameters	Description
string fileName	Name of the file.

1.1.15.1.11 Encryption.GetFileSHA256 Method

C#

```
public static byte[] GetFileSHA256(string fileName);
```

Remarks

This is GetFileSHA256, a member of class Encryption.

1.1.15.1.12 Encryption.GetFileSHA384 Method

C#

```
public static byte[] GetFileSHA384(string fileName);
```

Remarks

This is GetFileSHA384, a member of class Encryption.

1.1.15.1.13 Encryption.GetFileSHA512 Method

C#

```
public static byte[] GetFileSHA512(string fileName);
```

Remarks

This is GetFileSHA512, a member of class Encryption.

1.1.15.1.14 GetMD5 Method

1.1.15.1.14.1 Encryption.GetMD5 Method (byte[])

Gets the M d5.

C#

```
public static byte[] GetMD5(byte[] message);
```

Parameters

Parameters	Description
byte[] message	The message.

1.1.15.1.14.2 Encryption.GetMD5 Method (string)

Gets the M d5.

C#

```
public static byte[] GetMD5(string message);
```

Parameters

Parameters	Description
string message	The message.

1.1.15.1.15 GetSHA1 Method

1.1.15.1.15.1 Encryption.GetSHA1 Method (byte[])

Gets the SH a1.

C#

```
public static byte[] GetSHA1(byte[] message);
```

Parameters

Parameters	Description
byte[] message	The message.

1.1.15.1.15.2 Encryption.GetSHA1 Method (string)

Gets the SH a1.

C#

```
public static byte[] GetSHA1(string message);
```

Parameters

Parameters	Description
string message	The message.

1.1.15.1.16 Encryption.GetSHA256 Method

C#

```
public static byte[] GetSHA256(byte[] message);
```

Remarks

This is GetSHA256, a member of class Encryption.

1.1.15.1.17 Encryption.GetSHA384 Method

C#

```
public static byte[] GetSHA384(byte[] message);
```

Remarks

This is GetSHA384, a member of class Encryption.

1.1.15.1.18 Encryption.GetSHA512 Method

C#

```
public static byte[] GetSHA512(byte[] message);
```

Remarks

This is GetSHA512, a member of class Encryption.

1.1.15.1.19 Encryption.VerifySignature Method

Verifies the signature.

C#

```
public static bool VerifySignature(byte[] certificate, byte[] dataHash, int hashSize, byte[] signature, int signatureSize);
```

Parameters

Parameters	Description
byte[] certificate	The certificate.
byte[] dataHash	The data hash.
int hashSize	Size of the hash.
byte[] signature	The signature.
int signatureSize	Size of the signature.

1.1.16 FileOperations Class

Helper class for common file operations

Inheritance Hierarchy

Swelio.Engine.FileOperations

C#




















```
public static class FileOperations;
```










File

File: FileOperations.cs (see page 132)




























Namespace: Swelio.Engine (see page 1)


Members**FileOperations Methods**

	Name	Description
	ClearFileAttributes (see page 49)	This is ClearFileAttributes, a member of class FileOperations.
	CopyFile (see page 49)	This is CopyFile, a member of class FileOperations.
	CreateUnicodeFile (see page 49)	This is CreateUnicodeFile, a member of class FileOperations.
	DeleteFile (see page 49)	Deletes the file.
	DeleteToRecycleBin (see page 49)	Deletes file to recycle bin.
	DirectoryExists (see page 50)	This is DirectoryExists, a member of class FileOperations.
	ExcludeTrailingPathDelimiter (see page 50)	This is ExcludeTrailingPathDelimiter, a member of class FileOperations.
	FileExists (see page 50)	Checks if file exists
	FileExtensionIs (see page 50)	This is FileExtensionIs, a member of class FileOperations.
	FilesAnimatedGif (see page 50)	This is FilesAnimatedGif, a member of class FileOperations.
	FilesExe (see page 50)	This is FilesExe, a member of class FileOperations.
	FilesIcon (see page 51)	Checks if the file is a Windows icon file
	FilesImage (see page 51)	The file is an image (jpeg, bmp, gif, png or ico)
	FilesLink (see page 51)	This is FilesLink, a member of class FileOperations.
	FileOrFolderExists (see page 51)	Check if file or folder with given name exists
	FullPath (see page 51)	If file exists in the current folder then this method simply returns the file name. if not, it will search the file with provided name in every folder, specified in the system search path.
	GetExtension (see page 52)	This is GetExtension, a member of class FileOperations.
	GetFileSize (see page 52)	This is GetFileSize, a member of class FileOperations.
	GetFilesCount (see page 52)	This is GetFilesCount, a member of class FileOperations.

	IncludeTrailingPathDelimiter (see page 52)	This is IncludeTrailingPathDelimiter, a member of class FileOperations.
	IsDirectory (see page 52)	This is IsDirectory, a member of class FileOperations.
	IsUnicodeFile (see page 52)	This is IsUnicodeFile, a member of class FileOperations.
	IsValidFileName (see page 53)	This is IsValidFileName, a member of class FileOperations.
	IsValidPathName (see page 53)	This is IsValidPathName, a member of class FileOperations.
	RenameFile (see page 53)	This is RenameFile, a member of class FileOperations.
	ShellCopyFile (see page 53)	This is ShellCopyFile, a member of class FileOperations.
	StripFileName (see page 53)	Expand environment values and relace it with the full value. This method removes environment variables from the file name. To insert environment variable to the file name use UnExpandPath (see page 53) method
	UnExpandPath (see page 53)	Replace known path by environment variables. This function does the opposite work to StripFileName (see page 53) function

FileOperations Methods

	Name	Description
	ClearFileAttributes (see page 49)	This is ClearFileAttributes, a member of class FileOperations.
	CopyFile (see page 49)	This is CopyFile, a member of class FileOperations.
	CreateUnicodeFile (see page 49)	This is CreateUnicodeFile, a member of class FileOperations.
	DeleteFile (see page 49)	Deletes the file.
	DeleteToRecycleBin (see page 49)	Deletes file to recycle bin.
	DirectoryExists (see page 50)	This is DirectoryExists, a member of class FileOperations.
	ExcludeTrailingPathDelimiter (see page 50)	This is ExcludeTrailingPathDelimiter, a member of class FileOperations.
	FileExists (see page 50)	Checks if file exists
	FileExtensionsIs (see page 50)	This is FileExtensionsIs, a member of class FileOperations.
	FilesAnimatedGif (see page 50)	This is FilesAnimatedGif, a member of class FileOperations.
	FilesExe (see page 50)	This is FilesExe, a member of class FileOperations.
	FilesIcon (see page 51)	Checks if the file is a Windows icon file
	FilesImage (see page 51)	The file is an image (jpeg, bmp, gif, png or ico)
	FilesLink (see page 51)	This is FilesLink, a member of class FileOperations.
	FileOrFolderExists (see page 51)	Check if file or folder with given name exists
	FullPath (see page 51)	If file exists in the current folder then this method simply returns the file name. if not, it will search the file with provided name in every folder, specified in the system search path.
	GetExtension (see page 52)	This is GetExtension, a member of class FileOperations.
	GetFileSize (see page 52)	This is GetFileSize, a member of class FileOperations.
	GetFilesCount (see page 52)	This is GetFilesCount, a member of class FileOperations.
	IncludeTrailingPathDelimiter (see page 52)	This is IncludeTrailingPathDelimiter, a member of class FileOperations.
	IsDirectory (see page 52)	This is IsDirectory, a member of class FileOperations.
	IsUnicodeFile (see page 52)	This is IsUnicodeFile, a member of class FileOperations.
	IsValidFileName (see page 53)	This is IsValidFileName, a member of class FileOperations.
	IsValidPathName (see page 53)	This is IsValidPathName, a member of class FileOperations.
	RenameFile (see page 53)	This is RenameFile, a member of class FileOperations.
	ShellCopyFile (see page 53)	This is ShellCopyFile, a member of class FileOperations.
	StripFileName (see page 53)	Expand environment values and relace it with the full value. This method removes environment variables from the file name. To insert environment variable to the file name use UnExpandPath (see page 53) method

	UnExpandPath (🔗 see page 53)	Replace known path by environment variables. This function does the opposite work to StripFileName (🔗 see page 53) function
---	------------------------------	---

1.1.16.1 FileOperations Methods

1.1.16.1.1 FileOperations.ClearFileAttributes Method

C#

```
public static void ClearFileAttributes(string fileName);
```

Remarks

This is ClearFileAttributes, a member of class FileOperations.

1.1.16.1.2 FileOperations.CopyFile Method

C#

```
public static void CopyFile(string sourceFileName, string destinationFileName);
```

Remarks

This is CopyFile, a member of class FileOperations.

1.1.16.1.3 FileOperations.CreateUnicodeFile Method

C#

```
public static void CreateUnicodeFile(string fileName);
```

Remarks

This is CreateUnicodeFile, a member of class FileOperations.

1.1.16.1.4 FileOperations.DeleteFile Method

Deletes the file.

C#

```
public static void DeleteFile(string fileName);
```

Parameters

Parameters	Description
string fileName	Name of the file.

1.1.16.1.5 FileOperations.DeleteToRecycleBin Method

Deletes file to recycle bin.

C#

```
public static void DeleteToRecycleBin(string fileName);
```

Parameters

Parameters	Description
string fileName	Name of the file.

1.1.16.1.6 FileOperations.DirectoryExists Method

C#

```
public static bool DirectoryExists(string directoryName);
```

Remarks

This is DirectoryExists, a member of class FileOperations.

1.1.16.1.7 FileOperations.ExcludeTrailingPathDelimiter Method

C#

```
public static string ExcludeTrailingPathDelimiter(string fullPath);
```

Remarks

This is ExcludeTrailingPathDelimiter, a member of class FileOperations.

1.1.16.1.8 FileOperations.FileExists Method

Checks if file exists

C#

```
public static bool FileExists(string fileName);
```

Parameters

Parameters	Description
name	The file name.

Returns

True, if file exists, otherwise false

1.1.16.1.9 FileOperations.FileExtensionIs Method

C#

```
public static bool FileExtensionIs(string fileName, string extension);
```

Remarks

This is FileExtensionIs, a member of class FileOperations.

1.1.16.1.10 FileOperations.FileIsAnimatedGif Method

C#

```
public static bool FileIsAnimatedGif(string fileName);
```

Remarks

This is FileIsAnimatedGif, a member of class FileOperations.

1.1.16.1.11 FileOperations.FileIsExe Method

C#

```
public static bool FileIsExe(string fileName);
```

Remarks

This is FileIsExe, a member of class FileOperations.

1.1.16.1.12 FileOperations.FileIsIcon Method

Checks if the file is a Windows icon file

C#

```
public static bool FileIsIcon(string fileName);
```

Parameters

Parameters	Description
string fileName	Name of the file.

Returns

Returns true if the file is a Windows icon file; otherwise returns false

1.1.16.1.13 FileOperations.FileIsImage Method

The file is an image (jpeg, bmp, gif, png or ico)

C#

```
public static bool FileIsImage(string fileName);
```

Parameters

Parameters	Description
string fileName	Name of the file.

1.1.16.1.14 FileOperations.FileIsLink Method

C#

```
public static bool FileIsLink(string fileName);
```

Remarks

This is FileIsLink, a member of class FileOperations.

1.1.16.1.15 FileOperations.FileOrFolderExists Method

Check if file or folder with given name exists

C#

```
public static bool FileOrFolderExists(string name);
```

Parameters

Parameters	Description
string name	The name.

1.1.16.1.16 FileOperations.FullPath Method

If file exists in the current folder then this method simply returns the file name. If not, it will search the file with provided name in every folder, specified in the system search path.

C#

```
public static string FullPath(string fileName);
```

Parameters

Parameters	Description
string fileName	Name of the file.

Returns

Returns the full file name including the full path to it

1.1.16.1.17 FileOperations.GetExtension Method**C#**

```
public static string GetExtension(string path, bool includeDot);
```

Remarks

This is GetExtension, a member of class FileOperations.

1.1.16.1.18 FileOperations.GetFileSize Method**C#**

```
public static int GetFileSize(string fileName);
```

Remarks

This is GetFileSize, a member of class FileOperations.

1.1.16.1.19 FileOperations.GetFilesCount Method**C#**

```
public static int GetFilesCount(string folderName);
```

Remarks

This is GetFilesCount, a member of class FileOperations.

1.1.16.1.20 FileOperations.IncludeTrailingPathDelimiter Method**C#**

```
public static string IncludeTrailingPathDelimiter(string fullPath);
```

Remarks

This is IncludeTrailingPathDelimiter, a member of class FileOperations.

1.1.16.1.21 FileOperations.IsDirectory Method**C#**

```
public static bool IsDirectory(string directoryName);
```

Remarks

This is IsDirectory, a member of class FileOperations.

1.1.16.1.22 FileOperations.IsUnicodeFile Method**C#**

```
public static bool IsUnicodeFile(string fileName);
```

Remarks

This is IsUnicodeFile, a member of class FileOperations.

1.1.16.1.23 FileOperations.IsValidFileName Method

C#

```
public static bool IsValidFileName(string path);
```

Remarks

This is IsValidFileName, a member of class FileOperations.

1.1.16.1.24 FileOperations.IsValidPathName Method

C#

```
public static bool IsValidPathName(string path);
```

Remarks

This is IsValidPathName, a member of class FileOperations.

1.1.16.1.25 FileOperations.RenameFile Method

C#

```
public static void RenameFile(string oldFileName, string newFileName);
```

Remarks

This is RenameFile, a member of class FileOperations.

1.1.16.1.26 FileOperations.ShellCopyFile Method

C#

```
public static void ShellCopyFile(string oldName, string newName);
```

Remarks

This is ShellCopyFile, a member of class FileOperations.

1.1.16.1.27 FileOperations.StripFileName Method

Expand environment values and relace it with the full value. This method removes environment varaibles from the file name. To insert environment variable to the file name use UnExpandPath ([↗](#) see page 53) method

C#

```
public static string StripFileName(string name);
```

Parameters

Parameters	Description
string name	The name of the file.

Returns

A string with each environment variable replaced by its value.

1.1.16.1.28 FileOperations.UnExpandPath Method

Replace known path by environment variables. This function does the opposite work to StripFileName ([↗](#) see page 53) function

C#

```
public static string UnExpandPath(string path);
```

Parameters

Parameters	Description
string path	The path.

1.1.17 Identity Class

Holds identity information that is stored on EID card

Inheritance Hierarchy

Swelio.Engine.Identity

C#


```
[Browsable(false)]
public class Identity;
```

File




















File: Identity.cs ([see page 132](#))











Namespace: Swelio.Engine ([see page 1](#))

Members**Identity Methods**

	Name	Description
	Clear (see page 56)	Clear all stored information

Identity Properties






























	Name	Description
	BirthDate (see page 56)	Birth date in YYYYMMDD format
	BirthLocation (see page 56)	Birth location
	BrexitMention1 (see page 56)	This is BrexitMention1, a member of class Identity.
	BrexitMention2 (see page 56)	This is BrexitMention2, a member of class Identity.
	CardNumber (see page 56)	Electronic ID card number
	ChipNumber (see page 57)	Electronic ID card physical chip number
	DateAndCountryOfProtection (see page 57)	This is DateAndCountryOfProtection, a member of class Identity.
	DocumentType (see page 57)	Document type (Belgian citizen, European Community citizen, ...)
	Duplicate (see page 57)	This is Duplicate, a member of class Identity.
	ExtendedMinority (see page 57)	Extended minority
	FirstName1 (see page 57)	First name
	FirstName2 (see page 57)	First name
	MemberOfFamily (see page 58)	This is MemberOfFamily, a member of class Identity.
	Municipality (see page 58)	Card (see page 7) delivery municipality
	NationalNumber (see page 58)	National number
	Nationality (see page 58)	Nationality
	NationalityISO (see page 58)	Gets the nationality ISO 3166 code.
	NobleCondition (see page 58)	Noble condition
	RegionalFileNumber (see page 59)	This is RegionalFileNumber, a member of class Identity.

	Sex (see page 59)	Sex
	SpecialOrganization (see page 59)	This is SpecialOrganization, a member of class Identity.
	Surname (see page 59)	Surname
	ValidityDateBegin (see page 59)	Card (see page 7) validity date begin in YYYYMMDD format
	ValidityDateEnd (see page 59)	Card (see page 7) validity date end in YYYYMMDD format
	Vat1 (see page 59)	This is Vat1, a member of class Identity.
	Vat2 (see page 60)	This is Vat2, a member of class Identity.
	WhiteCane (see page 60)	White cane allowed (blind people)
	WorkPermitType (see page 60)	This is WorkPermitType, a member of class Identity.
	YellowCane (see page 60)	Yellow cane allowed (partially sighted people)

Identity Methods

	Name	Description
	Clear (see page 56)	Clear all stored information

Identity Properties

	Name	Description
	BirthDate (see page 56)	Birth date in YYYYMMDD format
	BirthLocation (see page 56)	Birth location
	BrexitMention1 (see page 56)	This is BrexitMention1, a member of class Identity.
	BrexitMention2 (see page 56)	This is BrexitMention2, a member of class Identity.
	CardNumber (see page 56)	Electronic ID card number
	ChipNumber (see page 57)	Electronic ID card physical chip number
	DateAndCountryOfProtection (see page 57)	This is DateAndCountryOfProtection, a member of class Identity.
	DocumentType (see page 57)	Document type (Belgian citizen, European Community citizen, ...)
	Duplicate (see page 57)	This is Duplicate, a member of class Identity.
	ExtendedMinority (see page 57)	Extended minority
	FirstName1 (see page 57)	First name
	FirstName2 (see page 57)	First name
	MemberOfFamily (see page 58)	This is MemberOfFamily, a member of class Identity.
	Municipality (see page 58)	Card (see page 7) delivery municipality
	NationalNumber (see page 58)	National number
	Nationality (see page 58)	Nationality
	NationalityISO (see page 58)	Gets the nationality ISO 3166 code.
	NobleCondition (see page 58)	Noble condition
	RegionalFileNumber (see page 59)	This is RegionalFileNumber, a member of class Identity.
	Sex (see page 59)	Sex
	SpecialOrganization (see page 59)	This is SpecialOrganization, a member of class Identity.
	Surname (see page 59)	Surname
	ValidityDateBegin (see page 59)	Card (see page 7) validity date begin in YYYYMMDD format
	ValidityDateEnd (see page 59)	Card (see page 7) validity date end in YYYYMMDD format
	Vat1 (see page 59)	This is Vat1, a member of class Identity.
	Vat2 (see page 60)	This is Vat2, a member of class Identity.
	WhiteCane (see page 60)	White cane allowed (blind people)
	WorkPermitType (see page 60)	This is WorkPermitType, a member of class Identity.
	YellowCane (see page 60)	Yellow cane allowed (partially sighted people)

1.1.17.1 Identity Methods

1.1.17.1.1 Identity.Clear Method

Clear all stored information

C#

```
public void Clear();
```

1.1.17.2 Identity Properties

1.1.17.2.1 Identity.BirthDate Property

Birth date in YYYYMMDD format

C#

```
[Description("Birth date")]  
[ReadOnly(true)]  
public DateTime BirthDate;
```

1.1.17.2.2 Identity.BirthLocation Property

Birth location

C#

```
[Description("Birth location")]  
[ReadOnly(true)]  
public string BirthLocation;
```

1.1.17.2.3 Identity.BrexitMention1 Property

C#

```
public string BrexitMention1;
```

Remarks

This is BrexitMention1, a member of class Identity.

1.1.17.2.4 Identity.BrexitMention2 Property

C#

```
public string BrexitMention2;
```

Remarks

This is BrexitMention2, a member of class Identity.

1.1.17.2.5 Identity.CardNumber Property

Electronic ID card number

C#

```
[Description("Electronic ID card number")]  
[ReadOnly(true)]  
public string CardNumber;
```

1.1.17.2.6 Identity.ChipNumber Property

Electronic ID card physical chip number

C#

```
[Description("Electronic ID card physical chip number")]  
[ReadOnly(true)]  
public string ChipNumber;
```

1.1.17.2.7 Identity.DateAndCountryOfProtection Property

C#

```
public string DateAndCountryOfProtection;
```

Remarks

This is DateAndCountryOfProtection, a member of class Identity.

1.1.17.2.8 Identity.DocumentType Property

Document type (Belgian citizen, European Community citizen, ...)

C#

```
[Description("Document type (Belgian citizen, European Community citizen, ...)")]  
[ReadOnly(true)]  
public DocumentType DocumentType;
```

1.1.17.2.9 Identity.Duplicate Property

C#

```
public string Duplicate;
```

Remarks

This is Duplicate, a member of class Identity.

1.1.17.2.10 Identity.ExtendedMinority Property

Extended minority

C#

```
[Description("Extended minotity")]  
[ReadOnly(true)]  
public bool ExtendedMinority;
```

1.1.17.2.11 Identity.FirstName1 Property

First name

C#

```
[Description("First name of the card owner")]  
[ReadOnly(true)]  
public string FirstName1;
```

1.1.17.2.12 Identity.FirstName2 Property

First name

C#

```
[Description("First name of the card owner")]  
[ReadOnly(true)]  
public string FirstName2;
```

1.1.17.2.13 Identity.MemberOfFamily Property

C#

```
public bool MemberOfFamily;
```

Remarks

This is MemberOfFamily, a member of class Identity.

1.1.17.2.14 Identity.Municipality Property

Card (see page 7) delivery municipality

C#

```
[Description("Card delivery municipality")]  
[ReadOnly(true)]  
public string Municipality;
```

1.1.17.2.15 Identity.NationalNumber Property

National number

C#

```
[Description("Unique national number")]  
[ReadOnly(true)]  
public string NationalNumber;
```

1.1.17.2.16 Identity.Nationality Property

Nationality

C#

```
[Description("Nationality of the card owner")]  
[ReadOnly(true)]  
public string Nationality;
```

1.1.17.2.17 Identity.NationalityISO Property

Gets the nationality ISO 3166 code.

C#

```
public string NationalityISO;
```

Description

The nationality ISO 3166 code.

1.1.17.2.18 Identity.NobleCondition Property

Noble condition

C#

```
[Description("Noble condition")]  
[ReadOnly(true)]  
public string NobleCondition;
```

1.1.17.2.19 Identity.RegionalFileNumber Property

C#

```
public string RegionalFileNumber;
```

Remarks

This is RegionalFileNumber, a member of class Identity.

1.1.17.2.20 Identity.Sex Property

Sex

C#

```
[Description("Sex of the card owner")]  
[ReadOnly(true)]  
public Gender Sex;
```

1.1.17.2.21 Identity.SpecialOrganization Property

C#

```
public string SpecialOrganization;
```

Remarks

This is SpecialOrganization, a member of class Identity.

1.1.17.2.22 Identity.Surname Property

Surname

C#

```
[Description("Surname of the card owner")]  
[ReadOnly(true)]  
public string Surname;
```

1.1.17.2.23 Identity.ValidityDateBegin Property

Card (see page 7) validity date begin in YYYYMMDD format

C#

```
[Description("Card validity date begin")]  
[ReadOnly(true)]  
public DateTime ValidityDateBegin;
```

1.1.17.2.24 Identity.ValidityDateEnd Property

Card (see page 7) validity date end in YYYYMMDD format

C#

```
[Description("Card validity date end")]  
[ReadOnly(true)]  
public DateTime ValidityDateEnd;
```

1.1.17.2.25 Identity.Vat1 Property

C#

```
public string Vat1;
```

Remarks

This is Vat1, a member of class Identity.

1.1.17.2.26 Identity.Vat2 Property

C#

```
public string Vat2;
```

Remarks

This is Vat2, a member of class Identity.

1.1.17.2.27 Identity.WhiteCane Property

White cane allowed (blind people)

C#

```
[Description("White cane allowed (blind people)")]  
[ReadOnly(true)]  
public bool WhiteCane;
```

1.1.17.2.28 Identity.WorkPermitType Property

C#

```
public string WorkPermitType;
```

Remarks

This is WorkPermitType, a member of class Identity.

1.1.17.2.29 Identity.YellowCane Property

Yellow cane allowed (partially sighted people)

C#

```
[Description("Yellow cane allowed (partially sighted people)")]  
[ReadOnly(true)]  
public bool YellowCane;
```

1.1.18 InteropHelper Class

Helper class for accessing native Windows API and resources Not recommended to use it directly without deep understanding of Windows API

Inheritance Hierarchy

Swelio.Engine.InteropHelper

C#








```
public static class InteropHelper;
```

File










File: InteropHelper.cs (see page 133)

Namespace: Swelio.Engine (see page 1)








Members**InteropHelper Methods**

	Name	Description
	ClearUnusedMemory (see page 62)	Clears the unused memory.
	GetStartup (see page 62)	This is GetStartup, a member of class InteropHelper.
	SetStartup (see page 62)	Add/Remove registry entries for windows startup. Only for current user
	ShowScreenKeyboard (see page 62)	Shows the screen keyboard.
	ShowWindowsError (see page 62)	Shows the windows error.
	TurnMonitorOff (see page 62)	Turns the monitor off.
	TurnMonitorOn (see page 63)	Turns the monitor on.










InteropHelper Properties

	Name	Description
	IsMediaCenter (see page 63)	This is IsMediaCenter, a member of class InteropHelper.
	IsMultiTouchReady (see page 63)	This is IsMultiTouchReady, a member of class InteropHelper.
	IsTabletPC (see page 63)	This is IsTabletPC, a member of class InteropHelper.
	MetroActive (see page 63)	This is MetroActive, a member of class InteropHelper.
	RunningOnVista (see page 63)	Gets a value indicating whether [running on vista].
	RunningOnWin10 (see page 64)	Determines if the application is running on Windows 10
	RunningOnWin7 (see page 64)	Determines if the application is running on Windows 7
	RunningOnWin8 (see page 64)	This is RunningOnWin8, a member of class InteropHelper.
	RunningOnXP (see page 64)	Gets a value indicating whether [running on XP].

InteropHelper Methods

	Name	Description
	ClearUnusedMemory (see page 62)	Clears the unused memory.
	GetStartup (see page 62)	This is GetStartup, a member of class InteropHelper.
	SetStartup (see page 62)	Add/Remove registry entries for windows startup. Only for current user
	ShowScreenKeyboard (see page 62)	Shows the screen keyboard.
	ShowWindowsError (see page 62)	Shows the windows error.
	TurnMonitorOff (see page 62)	Turns the monitor off.
	TurnMonitorOn (see page 63)	Turns the monitor on.

InteropHelper Properties

	Name	Description
	IsMediaCenter (see page 63)	This is IsMediaCenter, a member of class InteropHelper.
	IsMultiTouchReady (see page 63)	This is IsMultiTouchReady, a member of class InteropHelper.
	IsTabletPC (see page 63)	This is IsTabletPC, a member of class InteropHelper.
	MetroActive (see page 63)	This is MetroActive, a member of class InteropHelper.
	RunningOnVista (see page 63)	Gets a value indicating whether [running on vista].
	RunningOnWin10 (see page 64)	Determines if the application is running on Windows 10
	RunningOnWin7 (see page 64)	Determines if the application is running on Windows 7
	RunningOnWin8 (see page 64)	This is RunningOnWin8, a member of class InteropHelper.
	RunningOnXP (see page 64)	Gets a value indicating whether [running on XP].

1.1.18.1 InteropHelper Methods

1.1.18.1.1 InteropHelper.ClearUnusedMemory Method

Clears the unused memory.

C#

```
public static void ClearUnusedMemory();
```

1.1.18.1.2 InteropHelper.GetStartup Method

C#

```
public static bool GetStartup(string appName);
```

Remarks

This is GetStartup, a member of class InteropHelper.

1.1.18.1.3 InteropHelper.SetStartup Method

Add/Remove registry entries for windows startup. Only for current user

C#

```
public static void SetStartup(string appName, string appPath, bool enable);
```

Parameters

Parameters	Description
string appName	Name of the application.
string appPath	The application path.
bool enable	if set to true [enable].

1.1.18.1.4 InteropHelper.ShowScreenKeyboard Method

Shows the screen keyboard.

C#

```
[SecurityPermissionAttribute(SecurityAction.LinkDemand, Flags =  
SecurityPermissionFlag.UnmanagedCode)]  
public static void ShowScreenKeyboard();
```

1.1.18.1.5 InteropHelper.ShowWindowsError Method

Shows the windows error.

C#

```
public static void ShowWindowsError(int errorCode);
```

Parameters

Parameters	Description
int errorCode	The error code.

1.1.18.1.6 InteropHelper.TurnMonitorOff Method

Turns the monitor off.

C#

```
public static void TurnMonitorOff();
```

1.1.18.1.7 InteropHelper.TurnMonitorOn Method

Turns the monitor on.

C#

```
public static void TurnMonitorOn();
```

1.1.18.2 InteropHelper Properties

1.1.18.2.1 InteropHelper.IsMediaCenter Property

C#

```
public static bool IsMediaCenter;
```

Remarks

This is IsMediaCenter, a member of class InteropHelper.

1.1.18.2.2 InteropHelper.IsMultiTouchReady Property

C#

```
public static bool IsMultiTouchReady;
```

Remarks

This is IsMultiTouchReady, a member of class InteropHelper.

1.1.18.2.3 InteropHelper.IsTabletPC Property

C#

```
public static bool IsTabletPC;
```

Remarks

This is IsTabletPC, a member of class InteropHelper.

1.1.18.2.4 InteropHelper.MetroActive Property

C#

```
public static bool MetroActive;
```

Remarks

This is MetroActive, a member of class InteropHelper.

1.1.18.2.5 InteropHelper.RunningOnVista Property

Gets a value indicating whether [running on vista].

C#

```
public static bool RunningOnVista;
```

Description

true if [running on vista]; otherwise, false.

1.1.18.2.6 InteropHelper.RunningOnWin10 Property

Determines if the application is running on Windows 10

C#

```
public static bool RunningOnWin10;
```

1.1.18.2.7 InteropHelper.RunningOnWin7 Property

Determines if the application is running on Windows 7

C#

```
public static bool RunningOnWin7;
```

1.1.18.2.8 InteropHelper.RunningOnWin8 Property

C#

```
public static bool RunningOnWin8;
```

Remarks

This is RunningOnWin8, a member of class InteropHelper.

1.1.18.2.9 InteropHelper.RunningOnXP Property

Gets a value indicating whether [running on XP].

C#

```
public static bool RunningOnXP;
```

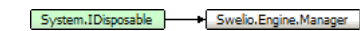
Description

true if [running on XP]; otherwise, false.

1.1.19 Manager Class

The Swelio Engine Manager class used to activate and deactivate engine and gives an access to the smart card readers, connected to the PC

Inheritance Hierarchy



C#

```
public sealed class Manager : IDisposable;
```

File

File: Manager.cs (🔗 see page 133)








Namespace: Swelio.Engine (🔗 see page 1)

Members






Methods

	Name	Description
🔗	Manager (🔗 see page 66)	Initializes a new instance of the Manager class.




Manager Methods

	Name	Description
	Dispose (see page 66)	Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.
	GetReader (see page 66)	Gets the default card reader.
	GetReaderName (see page 66)	Gets the name of the reader.
	ListReaders (see page 67)	Returns the array with the names of the attached card readers
	ReloadReadersList (see page 67)	Reloads the readers list.
	SendAPDU (see page 67)	This is SendAPDU, a member of class Manager.
	SetDefaultReader (see page 67)	Sets the default card reader.


Manager Properties

	Name	Description
	Active (see page 67)	Gets or sets a value indicating whether this Manager is active.
	ReaderCount (see page 67)	Gets the reader count.
	TraceEvents (see page 68)	Gets or sets a value indicating whether the card events are traced.
	TraceHardwareEvents (see page 68)	This is TraceHardwareEvents, a member of class Manager.
	TraceServiceEvents (see page 68)	This is TraceServiceEvents, a member of class Manager.


Manager Events

	Name	Description
	CardInserted (see page 68)	This is CardInserted, a member of class Manager.
	CardRemoved (see page 68)	This is CardRemoved, a member of class Manager.
	ReadersListChanged (see page 68)	This is ReadersListChanged, a member of class Manager.








Methods

	Name	Description
	Manager (see page 66)	Initializes a new instance of the Manager class.






Manager Events

	Name	Description
	CardInserted (see page 68)	This is CardInserted, a member of class Manager.
	CardRemoved (see page 68)	This is CardRemoved, a member of class Manager.
	ReadersListChanged (see page 68)	This is ReadersListChanged, a member of class Manager.

Manager Methods

	Name	Description
	Dispose (see page 66)	Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.
	GetReader (see page 66)	Gets the default card reader.
	GetReaderName (see page 66)	Gets the name of the reader.
	ListReaders (see page 67)	Returns the array with the names of the attached card readers
	ReloadReadersList (see page 67)	Reloads the readers list.
	SendAPDU (see page 67)	This is SendAPDU, a member of class Manager.
	SetDefaultReader (see page 67)	Sets the default card reader.

Manager Properties

	Name	Description
	Active (🔗 see page 67)	Gets or sets a value indicating whether this Manager is active.
	ReaderCount (🔗 see page 67)	Gets the reader count.
	TraceEvents (🔗 see page 68)	Gets or sets a value indicating whether the card events are traced.
	TraceHardwareEvents (🔗 see page 68)	This is TraceHardwareEvents, a member of class Manager.
	TraceServiceEvents (🔗 see page 68)	This is TraceServiceEvents, a member of class Manager.

1.1.19.1 Manager.Manager Constructor

Initializes a new instance of the Manager (🔗 see page 64) class.

C#

```
public Manager();
```

1.1.19.2 Manager Methods

1.1.19.2.1 Manager.Dispose Method

Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.

C#

```
public void Dispose();
```

1.1.19.2.2 GetReader Method

1.1.19.2.2.1 Manager.GetReader Method ()

Gets the default card reader.

C#

```
public CardReader GetReader(int readerNumber);
public CardReader GetReader();
```

1.1.19.2.2.2 Manager.GetReader Method (string)

Gets the reader.

C#

```
public CardReader GetReader(string name);
```

Parameters

Parameters	Description
string name	The name.

1.1.19.2.3 Manager.GetReaderName Method

Gets the name of the reader.

C#

```
public string GetReaderName(int readerNumber);
```

Parameters

Parameters	Description
int readerNumber	The reader number.

1.1.19.2.4 Manager.ListReaders Method

Returns the array with the names of the attached card readers

C#

```
public string[] ListReaders();
```

1.1.19.2.5 Manager.ReloadReadersList Method

Reloads the readers list.

C#

```
public void ReloadReadersList();
```

1.1.19.2.6 Manager.SendAPDU Method

C#

```
public bool SendAPDU(int readerNumber, byte[] apdu, int apduLen, byte[] result, ref int len);
```

Remarks

This is SendAPDU, a member of class Manager.

1.1.19.2.7 Manager.SetDefaultReader Method

Sets the default card reader.

C#


```
public void SetDefaultReader(int readerNumber);
```

Parameters

Parameters	Description
int readerNumber	The reader number.

1.1.19.3 Manager Properties

1.1.19.3.1 Manager.Active Property

Gets or sets a value indicating whether this Manager ( see page 64) is active.

C#

```
public bool Active;
```

Description

true if active; otherwise, false.

1.1.19.3.2 Manager.ReaderCount Property

Gets the reader count.

C#

```
public int ReaderCount;
```

1.1.19.3.3 Manager.TraceEvents Property

Gets or sets a value indicating whether the card events are traced.

C#

```
public bool TraceEvents;
```

Description

true if trace card events; otherwise, false.

1.1.19.3.4 Manager.TraceHardwareEvents Property

C#

```
public bool TraceHardwareEvents;
```

Remarks

This is TraceHardwareEvents, a member of class Manager.

1.1.19.3.5 Manager.TraceServiceEvents Property

C#

```
public bool TraceServiceEvents;
```

Remarks

This is TraceServiceEvents, a member of class Manager.

1.1.19.4 Manager Events

1.1.19.4.1 Manager.CardInserted Event

C#

```
public event EventHandler<CardEventArgs> CardInserted;
```

Remarks

This is CardInserted, a member of class Manager.

1.1.19.4.2 Manager.CardRemoved Event

C#

```
public event EventHandler<CardEventArgs> CardRemoved;
```

Remarks

This is CardRemoved, a member of class Manager.

1.1.19.4.3 Manager.ReadersListChanged Event

C#

```
public event EventHandler ReadersListChanged;
```

Remarks

This is ReadersListChanged, a member of class Manager.

1.1.20 NationalNumber Class

National number formatter

Inheritance Hierarchy

Swelio.Engine.NationalNumber

C#

```
public static class NationalNumber;
```


File

File: NationalNumber.cs (see page 133)


Namespace: Swelio.Engine (see page 1)

Members

NationalNumber Methods

	Name	Description
	ToString (see page 69)	Converts the natinal number value to its formatted String representation

NationalNumber Methods

	Name	Description
	ToString (see page 69)	Converts the natinal number value to its formatted String representation

1.1.20.1 NationalNumber Methods

1.1.20.1.1 NationalNumber.ToString Method

Converts the natinal number value to its formatted String representation

C#

```
public static string ToString(string nationalNumber);
```

Parameters

Parameters	Description
string nationalNumber	The unformatted national number

1.1.21 NativeMethods Class

Inheritance Hierarchy

Swelio.Engine.NativeMethods

C#

```
internal static class NativeMethods;
```

File


File: NativeMethods.cs ([see page 133](#))

Namespace: Swelio.Engine ([see page 1](#))


























Remarks









This is class Swelio.Engine.NativeMethods.

Members**NativeMethods Fields**



	Name	Description
	DLL_FILE_NAME (see page 78)	This is DLL_FILE_NAME, a member of class NativeMethods.

















NativeMethods Methods

	Name	Description
	ActivateCardEx (see page 79)	This is ActivateCardEx, a member of class NativeMethods.
	AddFileToContainer (see page 79)	This is AddFileToContainer, a member of class NativeMethods.
	CardDecryptFile (see page 79)	This is CardDecryptFile, a member of class NativeMethods.
	CardEncryptFile (see page 79)	This is CardEncryptFile, a member of class NativeMethods.
	CardSignCMS (see page 79)	This is CardSignCMS, a member of class NativeMethods.
	CardSignCMSEx (see page 80)	This is CardSignCMSEx, a member of class NativeMethods.
	CardSignCadesT (see page 80)	This is CardSignCadesT, a member of class NativeMethods.
	CardSignCadesTEx (see page 80)	This is CardSignCadesTEx, a member of class NativeMethods.
	CertSignCMS (see page 80)	This is CertSignCMS, a member of class NativeMethods.
	CertSignCMSData (see page 80)	This is CertSignCMSData, a member of class NativeMethods.
	CertSignCMSEx (see page 81)	This is CertSignCMSEx, a member of class NativeMethods.
	CertSignCadesT (see page 81)	This is CertSignCadesT, a member of class NativeMethods.
	CertSignCadesTData (see page 81)	This is CertSignCadesTData, a member of class NativeMethods.
	CertSignCadesTEx (see page 81)	This is CertSignCadesTEx, a member of class NativeMethods.
	CheckMD5 (see page 82)	This is CheckMD5, a member of class NativeMethods.
	CheckSHA1 (see page 82)	This is CheckSHA1, a member of class NativeMethods.
	ClearFileAttributes (see page 82)	This is ClearFileAttributes, a member of class NativeMethods.
	ClearUnusedMemory (see page 82)	This is ClearUnusedMemory, a member of class NativeMethods.
	ContainerCertificate (see page 82)	This is ContainerCertificate, a member of class NativeMethods.
	ContainerEidCertificate (see page 83)	This is ContainerEidCertificate, a member of class NativeMethods.
	ContainerPickCertificate (see page 83)	This is ContainerPickCertificate, a member of class NativeMethods.
	CreateCardBuffer (see page 83)	This is CreateCardBuffer, a member of class NativeMethods.
	CreateUnicodeFile (see page 83)	This is CreateUnicodeFile, a member of class NativeMethods.
	CurrentIPAddress (see page 83)	This is CurrentIPAddress, a member of class NativeMethods.
	DeactivateCardEx (see page 84)	This is DeactivateCardEx, a member of class NativeMethods.
	DecryptFileAES (see page 84)	This is DecryptFileAES, a member of class NativeMethods.
	DeleteCardBuffer (see page 84)	This is DeleteCardBuffer, a member of class NativeMethods.

	DeleteObject (see page 84)	This is DeleteObject, a member of class NativeMethods.
	DeleteToRecycleBin (see page 84)	This is DeleteToRecycleBin, a member of class NativeMethods.
	DirectoryExists (see page 85)	This is DirectoryExists, a member of class NativeMethods.
	DisplayCertificate (see page 85)	This is DisplayCertificate, a member of class NativeMethods.
	EmptyRecycleBin (see page 85)	This is EmptyRecycleBin, a member of class NativeMethods.
	EncodeCertificate (see page 85)	This is EncodeCertificate, a member of class NativeMethods.
	EncodePhoto (see page 85)	This is EncodePhoto, a member of class NativeMethods.
	EncryptFileAES (see page 86)	This is EncryptFileAES, a member of class NativeMethods.
	FileCopy (see page 86)	This is FileCopy, a member of class NativeMethods.
	FileDelete (see page 86)	This is FileDelete, a member of class NativeMethods.
	FileExists (see page 86)	This is FileExists, a member of class NativeMethods.
	FileExtensionIs (see page 86)	This is FileExtensionIs, a member of class NativeMethods.
	FileGetSize (see page 87)	This is FileGetSize, a member of class NativeMethods.
	FileIsExe (see page 87)	This is FileIsExe, a member of class NativeMethods.
	FileIsIcon (see page 87)	This is FileIsIcon, a member of class NativeMethods.
	FileIsImage (see page 87)	This is FileIsImage, a member of class NativeMethods.
	FileIsLink (see page 87)	This is FileIsLink, a member of class NativeMethods.
	FileOrFolderExists (see page 88)	This is FileOrFolderExists, a member of class NativeMethods.
	FileRename (see page 88)	This is FileRename, a member of class NativeMethods.
	FreeContainer (see page 88)	This is FreeContainer, a member of class NativeMethods.
	FullPath (see page 88)	This is FullPath, a member of class NativeMethods.
	GenerateAuthenticationSignatureEx (see page 88)	This is GenerateAuthenticationSignatureEx, a member of class NativeMethods.
	GenerateBMP (see page 89)	This is GenerateBMP, a member of class NativeMethods.
	GenerateNonRepudiationSignatureAlgo (see page 89)	This is GenerateNonRepudiationSignatureAlgo, a member of class NativeMethods.
	GenerateNonRepudiationSignatureEx (see page 89)	This is GenerateNonRepudiationSignatureEx, a member of class NativeMethods.
	GeneratePNG (see page 89)	This is GeneratePNG, a member of class NativeMethods.
	GenerateQRCodeEx (see page 89)	This is GenerateQRCodeEx, a member of class NativeMethods.
	GetCardBufferA (see page 90)	This is GetCardBufferA, a member of class NativeMethods.
	GetCardBufferSize (see page 90)	This is GetCardBufferSize, a member of class NativeMethods.
	GetCardBufferW (see page 90)	This is GetCardBufferW, a member of class NativeMethods.
	GetCardSerialNumber (see page 90)	This is GetCardSerialNumber, a member of class NativeMethods.
	GetCardVersion (see page 90)	This is GetCardVersion, a member of class NativeMethods.
	GetContainerError (see page 91)	This is GetContainerError, a member of class NativeMethods.
	GetContainerErrorsCount (see page 91)	This is GetContainerErrorsCount, a member of class NativeMethods.
	GetEncodedCertificateSize (see page 91)	This is GetEncodedCertificateSize, a member of class NativeMethods.
	GetEncodedPhotoSize (see page 91)	This is GetEncodedPhotoSize, a member of class NativeMethods.
	GetFileMD5 (see page 91)	This is GetFileMD5, a member of class NativeMethods.
	GetFileSHA1 (see page 92)	This is GetFileSHA1, a member of class NativeMethods.
	GetFileSHA256 (see page 92)	This is GetFileSHA256, a member of class NativeMethods.
	GetFileSHA384 (see page 92)	This is GetFileSHA384, a member of class NativeMethods.
	GetFileSHA512 (see page 92)	This is GetFileSHA512, a member of class NativeMethods.

	GetFilesCount (see page 92)	This is GetFilesCount, a member of class NativeMethods.
	GetHBitmap (see page 93)	This is GetHBitmap, a member of class NativeMethods.
	GetISOCode (see page 93)	This is GetISOCode, a member of class NativeMethods.
	GetMD5 (see page 93)	This is GetMD5, a member of class NativeMethods.
	GetReaderIndex (see page 93)	This is GetReaderIndex, a member of class NativeMethods.
	GetReaderName (see page 93)	This is GetReaderName, a member of class NativeMethods.
	GetReaderNameLen (see page 94)	This is GetReaderNameLen, a member of class NativeMethods.
	GetReadersCount (see page 94)	This is GetReadersCount, a member of class NativeMethods.
	GetSHA1 (see page 94)	This is GetSHA1, a member of class NativeMethods.
	GetSHA256 (see page 94)	This is GetSHA256, a member of class NativeMethods.
	GetSHA384 (see page 94)	This is GetSHA384, a member of class NativeMethods.
	GetSHA512 (see page 95)	This is GetSHA512, a member of class NativeMethods.
	GetSelectedReaderIndex (see page 95)	This is GetSelectedReaderIndex, a member of class NativeMethods.
	GetStartup (see page 95)	This is GetStartup, a member of class NativeMethods.
	HibernateWindows (see page 95)	This is HibernateWindows, a member of class NativeMethods.
	IgnoreHardwareEvents (see page 95)	This is IgnoreHardwareEvents, a member of class NativeMethods.
	IgnoreServiceEvents (see page 96)	This is IgnoreServiceEvents, a member of class NativeMethods.
	InitializeContainer (see page 96)	This is InitializeContainer, a member of class NativeMethods.
	IsAnimatedGIF (see page 96)	This is IsAnimatedGIF, a member of class NativeMethods.
	IsCardActivatedEx (see page 96)	This is IsCardActivatedEx, a member of class NativeMethods.
	IsCardPresentEx (see page 96)	This is IsCardPresentEx, a member of class NativeMethods.
	IsCardStillInsertedEx (see page 97)	This is IsCardStillInsertedEx, a member of class NativeMethods.
	IsConnectedToInternet (see page 97)	This is IsConnectedToInternet, a member of class NativeMethods.
	IsDirectory (see page 97)	This is IsDirectory, a member of class NativeMethods.
	IsEIDCardEx (see page 97)	This is IsEIDCardEx, a member of class NativeMethods.
	IsEngineActive (see page 97)	This is IsEngineActive, a member of class NativeMethods.
	IsMale (see page 98)	This is IsMale, a member of class NativeMethods.
	IsMediaCenter (see page 98)	This is IsMediaCenter, a member of class NativeMethods.
	IsMetroActive (see page 98)	This is IsMetroActive, a member of class NativeMethods.
	IsMultiTouchReady (see page 98)	This is IsMultiTouchReady, a member of class NativeMethods.
	IsTabletPC (see page 98)	This is IsTabletPC, a member of class NativeMethods.
	IsUnicodeFile (see page 99)	This is IsUnicodeFile, a member of class NativeMethods.
	IsValidFileName (see page 99)	This is IsValidFileName, a member of class NativeMethods.
	IsValidPathName (see page 99)	This is IsValidPathName, a member of class NativeMethods.
	IsWindows10 (see page 99)	This is IsWindows10, a member of class NativeMethods.
	IsWindows7 (see page 99)	This is IsWindows7, a member of class NativeMethods.
	IsWindows8 (see page 100)	This is IsWindows8, a member of class NativeMethods.
	IsWindowsVista (see page 100)	This is IsWindowsVista, a member of class NativeMethods.
	IsWindowsXP (see page 100)	This is IsWindowsXP, a member of class NativeMethods.
	LoadCertificate (see page 100)	This is LoadCertificate, a member of class NativeMethods.
	LoadPhoto (see page 100)	This is LoadPhoto, a member of class NativeMethods.


















	PathUnExpandEnvStrings (see page 101)	This is PathUnExpandEnvStrings, a member of class NativeMethods.
	PortAvailable (see page 101)	This is PortAvailable, a member of class NativeMethods.
	ReadAddressEx (see page 101)	This is ReadAddressEx, a member of class NativeMethods.
	ReadAuthenticationCertificate (see page 101)	This is ReadAuthenticationCertificate, a member of class NativeMethods.
	ReadCaCertificate (see page 101)	This is ReadCaCertificate, a member of class NativeMethods.
	ReadIdentityEx (see page 102)	This is ReadIdentityEx, a member of class NativeMethods.
	ReadNonRepudiationCertificate (see page 102)	This is ReadNonRepudiationCertificate, a member of class NativeMethods.
	ReadPhotoEx (see page 102)	This is ReadPhotoEx, a member of class NativeMethods.
	ReadRootCaCertificate (see page 102)	This is ReadRootCaCertificate, a member of class NativeMethods.
	ReadRrnCertificate (see page 102)	This is ReadRrnCertificate, a member of class NativeMethods.
	RecycleBinEmpty (see page 103)	This is RecycleBinEmpty, a member of class NativeMethods.
	ReloadReadersList (see page 103)	This is ReloadReadersList, a member of class NativeMethods.
	RemoveCallback (see page 103)	This is RemoveCallback, a member of class NativeMethods.
	RemoveStartup (see page 103)	This is RemoveStartup, a member of class NativeMethods.
	SaveAuthenticationCertificateEx (see page 103)	This is SaveAuthenticationCertificateEx, a member of class NativeMethods.
	SaveCaCertificateEx (see page 104)	This is SaveCaCertificateEx, a member of class NativeMethods.
	SaveCardToToXMLStreamExA (see page 104)	This is SaveCardToToXMLStreamExA, a member of class NativeMethods.
	SaveCardToToXMLStreamExW (see page 104)	This is SaveCardToToXMLStreamExW, a member of class NativeMethods.
	SaveCardToXmlEx (see page 104)	This is SaveCardToXmlEx, a member of class NativeMethods.
	SaveCardToXmlExAnsi (see page 104)	This is SaveCardToXmlExAnsi, a member of class NativeMethods.
	SaveContainer (see page 105)	This is SaveContainer, a member of class NativeMethods.
	SaveNonRepudiationCertificateEx (see page 105)	This is SaveNonRepudiationCertificateEx, a member of class NativeMethods.
	SavePersonCsvToStreamA (see page 105)	This is SavePersonCsvToStreamA, a member of class NativeMethods.
	SavePersonCsvToStreamW (see page 105)	This is SavePersonCsvToStreamW, a member of class NativeMethods.
	SavePersonToCsvEx (see page 105)	This is SavePersonToCsvEx, a member of class NativeMethods.
	SavePersonToCsvExAnsi (see page 106)	This is SavePersonToCsvExAnsi, a member of class NativeMethods.
	SavePhotoAsBitmapEx (see page 106)	This is SavePhotoAsBitmapEx, a member of class NativeMethods.
	SavePhotoAsJpegEx (see page 106)	This is SavePhotoAsJpegEx, a member of class NativeMethods.
	SaveRootCaCertificateEx (see page 106)	This is SaveRootCaCertificateEx, a member of class NativeMethods.
	SaveRrnCertificateEx (see page 106)	This is SaveRrnCertificateEx, a member of class NativeMethods.
	SelectReader (see page 107)	This is SelectReader, a member of class NativeMethods.
	SelectReaderByName (see page 107)	This is SelectReaderByName, a member of class NativeMethods.

	SendAPDU (see page 107)	This is SendAPDU, a member of class NativeMethods.
	SetCallback (see page 107)	This is SetCallback, a member of class NativeMethods.
	SetContainerCanonization (see page 107)	This is SetContainerCanonization, a member of class NativeMethods.
	SetContainerTimeServer (see page 108)	This is SetContainerTimeServer, a member of class NativeMethods.
	SetStartup (see page 108)	This is SetStartup, a member of class NativeMethods.
	ShellCopyFile (see page 108)	This is ShellCopyFile, a member of class NativeMethods.
	ShowError (see page 108)	This is ShowError, a member of class NativeMethods.
	ShutdownWindows (see page 108)	This is ShutdownWindows, a member of class NativeMethods.
	SignPdfFile (see page 109)	This is SignPdfFile, a member of class NativeMethods.
	SignPdfFileEx (see page 109)	This is SignPdfFileEx, a member of class NativeMethods.
	StartEngine (see page 109)	This is StartEngine, a member of class NativeMethods.
	StopEngine (see page 109)	This is StopEngine, a member of class NativeMethods.
	StripFileName (see page 109)	This is StripFileName, a member of class NativeMethods.
	SuspendWindows (see page 110)	This is SuspendWindows, a member of class NativeMethods.
	TurnMonitorOff (see page 110)	This is TurnMonitorOff, a member of class NativeMethods.
	TurnMonitorOn (see page 110)	This is TurnMonitorOn, a member of class NativeMethods.
	VerifyContainer (see page 110)	This is VerifyContainer, a member of class NativeMethods.
	VerifyPinEx (see page 110)	This is VerifyPinEx, a member of class NativeMethods.
	VerifySignature (see page 111)	This is VerifySignature, a member of class NativeMethods.

NativeMethods Fields





















	Name	Description
	DLL_FILE_NAME (see page 78)	This is DLL_FILE_NAME, a member of class NativeMethods.



















NativeMethods Methods

	Name	Description
	ActivateCardEx (see page 79)	This is ActivateCardEx, a member of class NativeMethods.
	AddFileToContainer (see page 79)	This is AddFileToContainer, a member of class NativeMethods.
	CardDecryptFile (see page 79)	This is CardDecryptFile, a member of class NativeMethods.
	CardEncryptFile (see page 79)	This is CardEncryptFile, a member of class NativeMethods.
	CardSignCMS (see page 79)	This is CardSignCMS, a member of class NativeMethods.
	CardSignCMSEx (see page 80)	This is CardSignCMSEx, a member of class NativeMethods.
	CardSignCadesT (see page 80)	This is CardSignCadesT, a member of class NativeMethods.
	CardSignCadesTEx (see page 80)	This is CardSignCadesTEx, a member of class NativeMethods.
	CertSignCMS (see page 80)	This is CertSignCMS, a member of class NativeMethods.
	CertSignCMSData (see page 80)	This is CertSignCMSData, a member of class NativeMethods.
	CertSignCMSEx (see page 81)	This is CertSignCMSEx, a member of class NativeMethods.
	CertSignCadesT (see page 81)	This is CertSignCadesT, a member of class NativeMethods.
	CertSignCadesTData (see page 81)	This is CertSignCadesTData, a member of class NativeMethods.
	CertSignCadesTEx (see page 81)	This is CertSignCadesTEx, a member of class NativeMethods.
	CheckMD5 (see page 82)	This is CheckMD5, a member of class NativeMethods.
	CheckSHA1 (see page 82)	This is CheckSHA1, a member of class NativeMethods.
	ClearFileAttributes (see page 82)	This is ClearFileAttributes, a member of class NativeMethods.

	ClearUnusedMemory (see page 82)	This is ClearUnusedMemory, a member of class NativeMethods.
	ContainerCertificate (see page 82)	This is ContainerCertificate, a member of class NativeMethods.
	ContainerEidCertificate (see page 83)	This is ContainerEidCertificate, a member of class NativeMethods.
	ContainerPickCertificate (see page 83)	This is ContainerPickCertificate, a member of class NativeMethods.
	CreateCardBuffer (see page 83)	This is CreateCardBuffer, a member of class NativeMethods.
	CreateUnicodeFile (see page 83)	This is CreateUnicodeFile, a member of class NativeMethods.
	CurrentIPAddress (see page 83)	This is CurrentIPAddress, a member of class NativeMethods.
	DeactivateCardEx (see page 84)	This is DeactivateCardEx, a member of class NativeMethods.
	DecryptFileAES (see page 84)	This is DecryptFileAES, a member of class NativeMethods.
	DeleteCardBuffer (see page 84)	This is DeleteCardBuffer, a member of class NativeMethods.
	DeleteObject (see page 84)	This is DeleteObject, a member of class NativeMethods.
	DeleteToRecycleBin (see page 84)	This is DeleteToRecycleBin, a member of class NativeMethods.
	DirectoryExists (see page 85)	This is DirectoryExists, a member of class NativeMethods.
	DisplayCertificate (see page 85)	This is DisplayCertificate, a member of class NativeMethods.
	EmptyRecycleBin (see page 85)	This is EmptyRecycleBin, a member of class NativeMethods.
	EncodeCertificate (see page 85)	This is EncodeCertificate, a member of class NativeMethods.
	EncodePhoto (see page 85)	This is EncodePhoto, a member of class NativeMethods.
	EncryptFileAES (see page 86)	This is EncryptFileAES, a member of class NativeMethods.
	FileCopy (see page 86)	This is FileCopy, a member of class NativeMethods.
	FileDelete (see page 86)	This is FileDelete, a member of class NativeMethods.
	FileExists (see page 86)	This is FileExists, a member of class NativeMethods.
	FileExtensionIs (see page 86)	This is FileExtensionIs, a member of class NativeMethods.
	FileGetSize (see page 87)	This is FileGetSize, a member of class NativeMethods.
	FileIsExe (see page 87)	This is FileIsExe, a member of class NativeMethods.
	FileIsIcon (see page 87)	This is FileIsIcon, a member of class NativeMethods.
	FileIsImage (see page 87)	This is FileIsImage, a member of class NativeMethods.
	FileIsLink (see page 87)	This is FileIsLink, a member of class NativeMethods.
	FileOrFolderExists (see page 88)	This is FileOrFolderExists, a member of class NativeMethods.
	FileRename (see page 88)	This is FileRename, a member of class NativeMethods.
	FreeContainer (see page 88)	This is FreeContainer, a member of class NativeMethods.
	FullPath (see page 88)	This is FullPath, a member of class NativeMethods.
	GenerateAuthenticationSignatureEx (see page 88)	This is GenerateAuthenticationSignatureEx, a member of class NativeMethods.
	GenerateBMP (see page 89)	This is GenerateBMP, a member of class NativeMethods.
	GenerateNonRepudiationSignatureAlgo (see page 89)	This is GenerateNonRepudiationSignatureAlgo, a member of class NativeMethods.
	GenerateNonRepudiationSignatureEx (see page 89)	This is GenerateNonRepudiationSignatureEx, a member of class NativeMethods.
	GeneratePNG (see page 89)	This is GeneratePNG, a member of class NativeMethods.
	GenerateQRCodeEx (see page 89)	This is GenerateQRCodeEx, a member of class NativeMethods.
	GetCardBufferA (see page 90)	This is GetCardBufferA, a member of class NativeMethods.
	GetCardBufferSize (see page 90)	This is GetCardBufferSize, a member of class NativeMethods.
	GetCardBufferW (see page 90)	This is GetCardBufferW, a member of class NativeMethods.

	GetCardSerialNumber (see page 90)	This is GetCardSerialNumber, a member of class NativeMethods.
	GetCardVersion (see page 90)	This is GetCardVersion, a member of class NativeMethods.
	GetContainerError (see page 91)	This is GetContainerError, a member of class NativeMethods.
	GetContainerErrorsCount (see page 91)	This is GetContainerErrorsCount, a member of class NativeMethods.
	GetEncodedCertificateSize (see page 91)	This is GetEncodedCertificateSize, a member of class NativeMethods.
	GetEncodedPhotoSize (see page 91)	This is GetEncodedPhotoSize, a member of class NativeMethods.
	GetFileMD5 (see page 91)	This is GetFileMD5, a member of class NativeMethods.
	GetFileSHA1 (see page 92)	This is GetFileSHA1, a member of class NativeMethods.
	GetFileSHA256 (see page 92)	This is GetFileSHA256, a member of class NativeMethods.
	GetFileSHA384 (see page 92)	This is GetFileSHA384, a member of class NativeMethods.
	GetFileSHA512 (see page 92)	This is GetFileSHA512, a member of class NativeMethods.
	GetFilesCount (see page 92)	This is GetFilesCount, a member of class NativeMethods.
	GetHBitmap (see page 93)	This is GetHBitmap, a member of class NativeMethods.
	GetISOCode (see page 93)	This is GetISOCode, a member of class NativeMethods.
	GetMD5 (see page 93)	This is GetMD5, a member of class NativeMethods.
	GetReaderIndex (see page 93)	This is GetReaderIndex, a member of class NativeMethods.
	GetReaderName (see page 93)	This is GetReaderName, a member of class NativeMethods.
	GetReaderNameLen (see page 94)	This is GetReaderNameLen, a member of class NativeMethods.
	GetReadersCount (see page 94)	This is GetReadersCount, a member of class NativeMethods.
	GetSHA1 (see page 94)	This is GetSHA1, a member of class NativeMethods.
	GetSHA256 (see page 94)	This is GetSHA256, a member of class NativeMethods.
	GetSHA384 (see page 94)	This is GetSHA384, a member of class NativeMethods.
	GetSHA512 (see page 95)	This is GetSHA512, a member of class NativeMethods.
	GetSelectedReaderIndex (see page 95)	This is GetSelectedReaderIndex, a member of class NativeMethods.
	GetStartup (see page 95)	This is GetStartup, a member of class NativeMethods.
	HibernateWindows (see page 95)	This is HibernateWindows, a member of class NativeMethods.
	IgnoreHardwareEvents (see page 95)	This is IgnoreHardwareEvents, a member of class NativeMethods.
	IgnoreServiceEvents (see page 96)	This is IgnoreServiceEvents, a member of class NativeMethods.
	InitializeContainer (see page 96)	This is InitializeContainer, a member of class NativeMethods.
	IsAnimatedGIF (see page 96)	This is IsAnimatedGIF, a member of class NativeMethods.
	IsCardActivatedEx (see page 96)	This is IsCardActivatedEx, a member of class NativeMethods.
	IsCardPresentEx (see page 96)	This is IsCardPresentEx, a member of class NativeMethods.
	IsCardStillInsertedEx (see page 97)	This is IsCardStillInsertedEx, a member of class NativeMethods.
	IsConnectedToInternet (see page 97)	This is IsConnectedToInternet, a member of class NativeMethods.
	IsDirectory (see page 97)	This is IsDirectory, a member of class NativeMethods.
	IsEIDCardEx (see page 97)	This is IsEIDCardEx, a member of class NativeMethods.
	IsEngineActive (see page 97)	This is IsEngineActive, a member of class NativeMethods.
	IsMale (see page 98)	This is IsMale, a member of class NativeMethods.
	IsMediaCenter (see page 98)	This is IsMediaCenter, a member of class NativeMethods.
	IsMetroActive (see page 98)	This is IsMetroActive, a member of class NativeMethods.

	IsMultiTouchReady (see page 98)	This is IsMultiTouchReady, a member of class NativeMethods.
	IsTabletPC (see page 98)	This is IsTabletPC, a member of class NativeMethods.
	IsUnicodeFile (see page 99)	This is IsUnicodeFile, a member of class NativeMethods.
	IsValidFileName (see page 99)	This is IsValidFileName, a member of class NativeMethods.
	IsValidPathName (see page 99)	This is IsValidPathName, a member of class NativeMethods.
	IsWindows10 (see page 99)	This is IsWindows10, a member of class NativeMethods.
	IsWindows7 (see page 99)	This is IsWindows7, a member of class NativeMethods.
	IsWindows8 (see page 100)	This is IsWindows8, a member of class NativeMethods.
	IsWindowsVista (see page 100)	This is IsWindowsVista, a member of class NativeMethods.
	IsWindowsXP (see page 100)	This is IsWindowsXP, a member of class NativeMethods.
	LoadCertificate (see page 100)	This is LoadCertificate, a member of class NativeMethods.
	LoadPhoto (see page 100)	This is LoadPhoto, a member of class NativeMethods.
	PathUnExpandEnvStrings (see page 101)	This is PathUnExpandEnvStrings, a member of class NativeMethods.
	PortAvailable (see page 101)	This is PortAvailable, a member of class NativeMethods.
	ReadAddressEx (see page 101)	This is ReadAddressEx, a member of class NativeMethods.
	ReadAuthenticationCertificate (see page 101)	This is ReadAuthenticationCertificate, a member of class NativeMethods.
	ReadCaCertificate (see page 101)	This is ReadCaCertificate, a member of class NativeMethods.
	ReadIdentityEx (see page 102)	This is ReadIdentityEx, a member of class NativeMethods.
	ReadNonRepudiationCertificate (see page 102)	This is ReadNonRepudiationCertificate, a member of class NativeMethods.
	ReadPhotoEx (see page 102)	This is ReadPhotoEx, a member of class NativeMethods.
	ReadRootCaCertificate (see page 102)	This is ReadRootCaCertificate, a member of class NativeMethods.
	ReadRrnCertificate (see page 102)	This is ReadRrnCertificate, a member of class NativeMethods.
	RecycleBinEmpty (see page 103)	This is RecycleBinEmpty, a member of class NativeMethods.
	ReloadReadersList (see page 103)	This is ReloadReadersList, a member of class NativeMethods.
	RemoveCallback (see page 103)	This is RemoveCallback, a member of class NativeMethods.
	RemoveStartup (see page 103)	This is RemoveStartup, a member of class NativeMethods.
	SaveAuthenticationCertificateEx (see page 103)	This is SaveAuthenticationCertificateEx, a member of class NativeMethods.
	SaveCaCertificateEx (see page 104)	This is SaveCaCertificateEx, a member of class NativeMethods.
	SaveCardToToXMLStreamExA (see page 104)	This is SaveCardToToXMLStreamExA, a member of class NativeMethods.
	SaveCardToToXMLStreamExW (see page 104)	This is SaveCardToToXMLStreamExW, a member of class NativeMethods.
	SaveCardToXmlEx (see page 104)	This is SaveCardToXmlEx, a member of class NativeMethods.
	SaveCardToXmlExAnsi (see page 104)	This is SaveCardToXmlExAnsi, a member of class NativeMethods.
	SaveContainer (see page 105)	This is SaveContainer, a member of class NativeMethods.
	SaveNonRepudiationCertificateEx (see page 105)	This is SaveNonRepudiationCertificateEx, a member of class NativeMethods.
	SavePersonCsvToStreamA (see page 105)	This is SavePersonCsvToStreamA, a member of class NativeMethods.
	SavePersonCsvToStreamW (see page 105)	This is SavePersonCsvToStreamW, a member of class NativeMethods.

	SavePersonToCsvEx (see page 105)	This is SavePersonToCsvEx, a member of class NativeMethods.
	SavePersonToCsvExAnsi (see page 106)	This is SavePersonToCsvExAnsi, a member of class NativeMethods.
	SavePhotoAsBitmapEx (see page 106)	This is SavePhotoAsBitmapEx, a member of class NativeMethods.
	SavePhotoAsJpegEx (see page 106)	This is SavePhotoAsJpegEx, a member of class NativeMethods.
	SaveRootCaCertificateEx (see page 106)	This is SaveRootCaCertificateEx, a member of class NativeMethods.
	SaveRrnCertificateEx (see page 106)	This is SaveRrnCertificateEx, a member of class NativeMethods.
	SelectReader (see page 107)	This is SelectReader, a member of class NativeMethods.
	SelectReaderByName (see page 107)	This is SelectReaderByName, a member of class NativeMethods.
	SendAPDU (see page 107)	This is SendAPDU, a member of class NativeMethods.
	SetCallback (see page 107)	This is SetCallback, a member of class NativeMethods.
	SetContainerCanonization (see page 107)	This is SetContainerCanonization, a member of class NativeMethods.
	SetContainerTimeServer (see page 108)	This is SetContainerTimeServer, a member of class NativeMethods.
	SetStartup (see page 108)	This is SetStartup, a member of class NativeMethods.
	ShellCopyFile (see page 108)	This is ShellCopyFile, a member of class NativeMethods.
	ShowError (see page 108)	This is ShowError, a member of class NativeMethods.
	ShutdownWindows (see page 108)	This is ShutdownWindows, a member of class NativeMethods.
	SignPdfFile (see page 109)	This is SignPdfFile, a member of class NativeMethods.
	SignPdfFileEx (see page 109)	This is SignPdfFileEx, a member of class NativeMethods.
	StartEngine (see page 109)	This is StartEngine, a member of class NativeMethods.
	StopEngine (see page 109)	This is StopEngine, a member of class NativeMethods.
	StripFileName (see page 109)	This is StripFileName, a member of class NativeMethods.
	SuspendWindows (see page 110)	This is SuspendWindows, a member of class NativeMethods.
	TurnMonitorOff (see page 110)	This is TurnMonitorOff, a member of class NativeMethods.
	TurnMonitorOn (see page 110)	This is TurnMonitorOn, a member of class NativeMethods.
	VerifyContainer (see page 110)	This is VerifyContainer, a member of class NativeMethods.
	VerifyPinEx (see page 110)	This is VerifyPinEx, a member of class NativeMethods.
	VerifySignature (see page 111)	This is VerifySignature, a member of class NativeMethods.

1.1.21.1 NativeMethods Fields

1.1.21.1.1 NativeMethods.DLL_FILE_NAME Field

C#

```
public const string DLL_FILE_NAME = "Swelio32.dll";
```

Remarks

This is DLL_FILE_NAME, a member of class NativeMethods.

1.1.21.2 NativeMethods Methods

1.1.21.2.1 NativeMethods.ActivateCardEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ActivateCardEx", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ActivateCardEx(int readerNumber);
```

Remarks

This is ActivateCardEx, a member of class NativeMethods.

1.1.21.2.2 NativeMethods.AddFileToContainer Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "AddFileToContainer", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool AddFileToContainer(IntPtr container,  
[MarshalAs(UnmanagedType.LPStr)] string fileName);
```

Remarks

This is AddFileToContainer, a member of class NativeMethods.

1.1.21.2.3 NativeMethods.CardDecryptFile Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CardDecryptFileW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CardDecryptFile([MarshalAs(UnmanagedType.LPWStr)] string Source,  
[MarshalAs(UnmanagedType.LPWStr)] string Destination);
```

Remarks

This is CardDecryptFile, a member of class NativeMethods.

1.1.21.2.4 NativeMethods.CardEncryptFile Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CardEncryptFileW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CardEncryptFile([MarshalAs(UnmanagedType.LPWStr)] string Source,  
[MarshalAs(UnmanagedType.LPWStr)] string Destination);
```

Remarks

This is CardEncryptFile, a member of class NativeMethods.

1.1.21.2.5 NativeMethods.CardSignCMS Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CardSignCMS", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CardSignCMS(int readerNumber, byte[] data, int dataLen, byte[]  
signature, ref int signatureLen);
```

Remarks

This is CardSignCMS, a member of class NativeMethods.

1.1.21.2.6 NativeMethods.CardSignCMSEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CardSignCMSEx", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CardSignCMSEx(int readerNumber, byte[] data, int dataLen, byte[]  
signature, ref int signatureLen, [In, Out] EIDError error);
```

Remarks

This is CardSignCMSEx, a member of class NativeMethods.

1.1.21.2.7 NativeMethods.CardSignCadesT Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CardSignCadesT", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CardSignCadesT(int readerNumber, byte[] data, int dataLen, byte[]  
signature, ref int signatureLen);
```

Remarks

This is CardSignCadesT, a member of class NativeMethods.

1.1.21.2.8 NativeMethods.CardSignCadesTEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CardSignCadesTEx", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CardSignCadesTEx(int readerNumber, byte[] data, int dataLen,  
byte[] signature, ref int signatureLen, [In, Out] EIDError error);
```

Remarks

This is CardSignCadesTEx, a member of class NativeMethods.

1.1.21.2.9 NativeMethods.CertSignCMS Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CertSignCMS", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CertSignCMS(string certificate, string password, byte[] data, int  
dataLen, byte[] signature, ref int signatureLen);
```

Remarks

This is CertSignCMS, a member of class NativeMethods.

1.1.21.2.10 NativeMethods.CertSignCMSData Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CertSignCMSData", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
```

```
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CertSignCMSData(byte[] certificate, int certLen, string password,  
byte[] data, int dataLen, byte[] signature, ref int signatureLen, [In, Out] EIDError error);
```

Remarks

This is CertSignCMSData, a member of class NativeMethods.

1.1.21.2.11 NativeMethods.CertSignCMSEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CertSignCMSEx", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CertSignCMSEx(string certificate, string password, byte[] data,  
int dataLen, byte[] signature, ref int signatureLen, [In, Out] EIDError error);
```

Remarks

This is CertSignCMSEx, a member of class NativeMethods.

1.1.21.2.12 NativeMethods.CertSignCadesT Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CertSignCadesT", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CertSignCadesT(string certificate, string password, byte[] data,  
int dataLen, byte[] signature, ref int signatureLen);
```

Remarks

This is CertSignCadesT, a member of class NativeMethods.

1.1.21.2.13 NativeMethods.CertSignCadesTData Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CertSignCadesTData", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CertSignCadesTData(byte[] certificate, int certLen, string  
password, byte[] data, int dataLen, byte[] signature, ref int signatureLen, [In, Out]  
EIDError error);
```

Remarks

This is CertSignCadesTData, a member of class NativeMethods.

1.1.21.2.14 NativeMethods.CertSignCadesTEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CertSignCadesTEx", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CertSignCadesTEx(string certificate, string password, byte[]  
data, int dataLen, byte[] signature, ref int signatureLen, [In, Out] EIDError error);
```

Remarks

This is CertSignCadesTEx, a member of class NativeMethods.

1.1.21.2.15 NativeMethods.CheckMD5 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CheckMD5", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CheckMD5(byte[] source, int sourceSize, byte[] buffer, int  
bufferSize);
```

Remarks

This is CheckMD5, a member of class NativeMethods.

1.1.21.2.16 NativeMethods.CheckSHA1 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CheckSHA1", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool CheckSHA1(byte[] source, int sourceSize, byte[] buffer, int  
bufferSize);
```

Remarks

This is CheckSHA1, a member of class NativeMethods.

1.1.21.2.17 NativeMethods.ClearFileAttributes Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ClearFileAttributesW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void ClearFileAttributes([MarshalAs(UnmanagedType.LPWStr)] string  
fileName);
```

Remarks

This is ClearFileAttributes, a member of class NativeMethods.

1.1.21.2.18 NativeMethods.ClearUnusedMemory Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ClearUnusedMemory", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void ClearUnusedMemory();
```

Remarks

This is ClearUnusedMemory, a member of class NativeMethods.

1.1.21.2.19 NativeMethods.ContainerCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ContainerCertificate", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ContainerCertificate(IntPtr container,  
[MarshalAs(UnmanagedType.LPWStr)] string fileName, [MarshalAs(UnmanagedType.LPWStr)] string  
password);
```

Remarks

This is ContainerCertificate, a member of class NativeMethods.

1.1.21.2.20 NativeMethods.ContainerEidCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ContainerEidCertificate", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ContainerEidCertificate(IntPtr container, int readerNumber);
```

Remarks

This is ContainerEidCertificate, a member of class NativeMethods.

1.1.21.2.21 NativeMethods.ContainerPickCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ContainerPickCertificate", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ContainerPickCertificate(IntPtr container);
```

Remarks

This is ContainerPickCertificate, a member of class NativeMethods.

1.1.21.2.22 NativeMethods.CreateCardBuffer Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CreateCardBuffer", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern IntPtr CreateCardBuffer();
```

Remarks

This is CreateCardBuffer, a member of class NativeMethods.

1.1.21.2.23 NativeMethods.CreateUnicodeFile Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CreateUnicodeFileW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void CreateUnicodeFile([MarshalAs(UnmanagedType.LPWStr)] string  
fileName);
```

Remarks

This is CreateUnicodeFile, a member of class NativeMethods.

1.1.21.2.24 NativeMethods.CurrentIPAddress Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "CurrentIPAddressW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void CurrentIPAddress(StringBuilder Address, uint Len);
```

Remarks

This is CurrentIPAddress, a member of class NativeMethods.

1.1.21.2.25 NativeMethods.DeactivateCardEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "DeactivateCardEx", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void DeactivateCardEx(int readerNumber);
```

Remarks

This is DeactivateCardEx, a member of class NativeMethods.

1.1.21.2.26 NativeMethods.DecryptFileAES Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "DecryptFileAESW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool DecryptFileAES([MarshalAs(UnmanagedType.LPWStr)] string Source,  
[MarshalAs(UnmanagedType.LPWStr)] string Destination, [MarshalAs(UnmanagedType.LPWStr)]  
string Password);
```

Remarks

This is DecryptFileAES, a member of class NativeMethods.

1.1.21.2.27 NativeMethods.DeleteCardBuffer Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "DeleteCardBuffer", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void DeleteCardBuffer(IntPtr buffer);
```

Remarks

This is DeleteCardBuffer, a member of class NativeMethods.

1.1.21.2.28 NativeMethods.DeleteObject Method

C#

```
[DllImport("gdi32.dll", CharSet = CharSet.Auto, CallingConvention =  
CallingConvention.StdCall, SetLastError = true)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool DeleteObject(IntPtr hObject);
```

Remarks

This is DeleteObject, a member of class NativeMethods.

1.1.21.2.29 NativeMethods.DeleteToRecycleBin Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "DeleteToRecycleBinW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void DeleteToRecycleBin([MarshalAs(UnmanagedType.LPWStr)] string  
fileName, [MarshalAs(UnmanagedType.Bool)] bool Silent);
```

Remarks

This is DeleteToRecycleBin, a member of class NativeMethods.

1.1.21.2.30 NativeMethods.DirectoryExists Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "DirectoryExistsW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool DirectoryExists([MarshalAs(UnmanagedType.LPWStr)] string  
fileName);
```

Remarks

This is DirectoryExists, a member of class NativeMethods.

1.1.21.2.31 NativeMethods.DisplayCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "DisplayCertificate", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void DisplayCertificate([In, Out] EIDCertificate Certificate);
```

Remarks

This is DisplayCertificate, a member of class NativeMethods.

1.1.21.2.32 NativeMethods.EmptyRecycleBin Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "EmptyRecycleBin", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void EmptyRecycleBin();
```

Remarks

This is EmptyRecycleBin, a member of class NativeMethods.

1.1.21.2.33 NativeMethods.EncodeCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "EncodeCertificate", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int EncodeCertificate([In, Out] EIDCertificate Certificate, byte[]  
buffer, int bufferSize);
```

Remarks

This is EncodeCertificate, a member of class NativeMethods.

1.1.21.2.34 NativeMethods.EncodePhoto Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "EncodePhoto", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int EncodePhoto([In, Out] EIDPicture Photo, byte[] buffer, int  
bufferSize);
```

Remarks

This is EncodePhoto, a member of class NativeMethods.

1.1.21.2.35 NativeMethods.EncryptFileAES Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "EncryptFileAESW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool EncryptFileAES([MarshalAs(UnmanagedType.LPWStr)] string Source,
[MarshalAs(UnmanagedType.LPWStr)] string Destination, [MarshalAs(UnmanagedType.LPWStr)]
string Password);
```

Remarks

This is EncryptFileAES, a member of class NativeMethods.

1.1.21.2.36 NativeMethods.FileCopy Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileCopyW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool FileCopy([MarshalAs(UnmanagedType.LPWStr)] string OldName,
[MarshalAs(UnmanagedType.LPWStr)] string NewName);
```

Remarks

This is FileCopy, a member of class NativeMethods.

1.1.21.2.37 NativeMethods.FileDelete Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileDeleteW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
public static extern void FileDelete([MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is FileDelete, a member of class NativeMethods.

1.1.21.2.38 NativeMethods.FileExists Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileExistsW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool FileExists([MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is FileExists, a member of class NativeMethods.

1.1.21.2.39 NativeMethods.FileExtensionIs Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileExtensionIsW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool FileExtensionIs([MarshalAs(UnmanagedType.LPWStr)] string
fileName, [MarshalAs(UnmanagedType.LPWStr)] string Ext);
```

Remarks

This is FileExtensionIs, a member of class NativeMethods.

1.1.21.2.40 NativeMethods.FileGetSize Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileGetSizeW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int FileGetSize([MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is FileGetSize, a member of class NativeMethods.

1.1.21.2.41 NativeMethods.FileIsExe Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileIsExeW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool FileIsExe([MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is FileIsExe, a member of class NativeMethods.

1.1.21.2.42 NativeMethods.FileIsIcon Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileIsIconW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool FileIsIcon([MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is FileIsIcon, a member of class NativeMethods.

1.1.21.2.43 NativeMethods.FileIsImage Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileIsImageW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool FileIsImage([MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is FileIsImage, a member of class NativeMethods.

1.1.21.2.44 NativeMethods.FileIsLink Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileIsLink", CharSet = CharSet.Unicode,  
CallingConvention = CallingConvention.StdCall)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool FileIsLink([MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is FileIsLink, a member of class NativeMethods.

1.1.21.2.45 NativeMethods.FileOrFolderExists Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileOrFolderExistsW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool FileOrFolderExists([MarshalAs(UnmanagedType.LPWStr)] string
fileName);
```

Remarks

This is FileOrFolderExists, a member of class NativeMethods.

1.1.21.2.46 NativeMethods.FileRename Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FileRenameW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool FileRename([MarshalAs(UnmanagedType.LPWStr)] string OldName,
[MarshalAs(UnmanagedType.LPWStr)] string NewName);
```

Remarks

This is FileRename, a member of class NativeMethods.

1.1.21.2.47 NativeMethods.FreeContainer Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FreeContainer", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
public static extern void FreeContainer(IntPtr container);
```

Remarks

This is FreeContainer, a member of class NativeMethods.

1.1.21.2.48 NativeMethods.FullPath Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "FullPathW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool FullPath([MarshalAs(UnmanagedType.LPWStr)] string fileName,
StringBuilder sb);
```

Remarks

This is FullPath, a member of class NativeMethods.

1.1.21.2.49 NativeMethods.GenerateAuthenticationSignatureEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GenerateAuthenticationSignatureExW",
CallingConvention = CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool GenerateAuthenticationSignatureEx(int readerNumber,
[MarshalAs(UnmanagedType.LPWStr)] string pinCode, byte[] dataHash, int hashSize, byte[]
signature, ref int signatureSize);
```

Remarks

This is GenerateAuthenticationSignatureEx, a member of class NativeMethods.

1.1.21.2.50 NativeMethods.GenerateBMP Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GenerateBMPW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void GenerateBMP([MarshalAs(UnmanagedType.LPWStr)] string fileName,  
[MarshalAs(UnmanagedType.LPWStr)] string Text, int Margin, int Size, int Level);
```

Remarks

This is GenerateBMP, a member of class NativeMethods.

1.1.21.2.51 NativeMethods.GenerateNonRepudiationSignatureAlgo Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "NonRepudiationSignatureAlgoW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GenerateNonRepudiationSignatureAlgo(int readerNumber,  
[MarshalAs(UnmanagedType.LPWStr)] string pinCode, byte[] dataHash, int hashSize, byte[]  
signature, ref int signatureSize, byte algorithm);
```

Remarks

This is GenerateNonRepudiationSignatureAlgo, a member of class NativeMethods.

1.1.21.2.52 NativeMethods.GenerateNonRepudiationSignatureEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GenerateNonRepudiationSignatureExW",  
CallingConvention = CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GenerateNonRepudiationSignatureEx(int readerNumber,  
[MarshalAs(UnmanagedType.LPWStr)] string pinCode, byte[] dataHash, int hashSize, byte[]  
signature, ref int signatureSize);
```

Remarks

This is GenerateNonRepudiationSignatureEx, a member of class NativeMethods.

1.1.21.2.53 NativeMethods.GeneratePNG Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GeneratePNGW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void GeneratePNG([MarshalAs(UnmanagedType.LPWStr)] string fileName,  
[MarshalAs(UnmanagedType.LPWStr)] string Text, int Margin, int Size, int Level);
```

Remarks

This is GeneratePNG, a member of class NativeMethods.

1.1.21.2.54 NativeMethods.GenerateQRCodeEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GenerateQRCodeExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
```



```
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GenerateQRCodeEx(int readerNumber,  
[MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is GenerateQRCodeEx, a member of class NativeMethods.

1.1.21.2.55 NativeMethods.GetCardBufferA Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetCardBufferA", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Ansi, BestFitMapping = false,  
ThrowOnUnmappableChar = true, ExactSpelling = true)]  
public static extern void GetCardBufferA(IntPtr buffer, StringBuilder strDest, int count);
```

Remarks

This is GetCardBufferA, a member of class NativeMethods.

1.1.21.2.56 NativeMethods.GetCardBufferSize Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetCardBufferSize", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int GetCardBufferSize(IntPtr buffer);
```

Remarks

This is GetCardBufferSize, a member of class NativeMethods.

1.1.21.2.57 NativeMethods.GetCardBufferW Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetCardBufferW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void GetCardBufferW(IntPtr buffer, StringBuilder strDest, int count);
```

Remarks

This is GetCardBufferW, a member of class NativeMethods.

1.1.21.2.58 NativeMethods.GetCardSerialNumber Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetCardSerialNumber", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetCardSerialNumber(int readerNumber, byte[] serialNumber, ref  
int serialNumberSize);
```

Remarks

This is GetCardSerialNumber, a member of class NativeMethods.

1.1.21.2.59 NativeMethods.GetCardVersion Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetCardVersion", CharSet = CharSet.Unicode,  
CallingConvention = CallingConvention.StdCall)]  
public static extern int GetCardVersion(int readerNumber);
```

Remarks

This is GetCardVersion, a member of class NativeMethods.

1.1.21.2.60 NativeMethods.GetContainerError Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetContainerError", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetContainerError(IntPtr container, int index, byte[] buffer, int  
bufferSize);
```

Remarks

This is GetContainerError, a member of class NativeMethods.

1.1.21.2.61 NativeMethods.GetContainerErrorsCount Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetContainerErrorsCount", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int GetContainerErrorsCount(IntPtr container);
```

Remarks

This is GetContainerErrorsCount, a member of class NativeMethods.

1.1.21.2.62 NativeMethods.GetEncodedCertificateSize Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetEncodedCertificateSize", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int GetEncodedCertificateSize([In, Out] EIDCertificate Certificate);
```

Remarks

This is GetEncodedCertificateSize, a member of class NativeMethods.

1.1.21.2.63 NativeMethods.GetEncodedPhotoSize Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetEncodedPhotoSize", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int GetEncodedPhotoSize([In, Out] EIDPicture Photo);
```

Remarks

This is GetEncodedPhotoSize, a member of class NativeMethods.

1.1.21.2.64 NativeMethods.GetFileMD5 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetFileMD5W", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetFileMD5([MarshalAs(UnmanagedType.LPWStr)] string fileName,  
byte[] buffer, int bufferSize);
```

Remarks

This is GetFileMD5, a member of class NativeMethods.

1.1.21.2.65 NativeMethods.GetFileSHA1 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetFileSHA1W", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetFileSHA1([MarshalAs(UnmanagedType.LPWStr)] string fileName,  
byte[] buffer, int bufferSize);
```

Remarks

This is GetFileSHA1, a member of class NativeMethods.

1.1.21.2.66 NativeMethods.GetFileSHA256 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetFileSHA256W", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetFileSHA256([MarshalAs(UnmanagedType.LPWStr)] string fileName,  
byte[] buffer, int bufferSize);
```

Remarks

This is GetFileSHA256, a member of class NativeMethods.

1.1.21.2.67 NativeMethods.GetFileSHA384 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetFileSHA384W", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetFileSHA384([MarshalAs(UnmanagedType.LPWStr)] string fileName,  
byte[] buffer, int bufferSize);
```

Remarks

This is GetFileSHA384, a member of class NativeMethods.

1.1.21.2.68 NativeMethods.GetFileSHA512 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetFileSHA512W", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetFileSHA512([MarshalAs(UnmanagedType.LPWStr)] string fileName,  
byte[] buffer, int bufferSize);
```

Remarks

This is GetFileSHA512, a member of class NativeMethods.

1.1.21.2.69 NativeMethods.GetFilesCount Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetFilesCountW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int GetFilesCount([MarshalAs(UnmanagedType.LPWStr)] string FolderName);
```

Remarks

This is GetFilesCount, a member of class NativeMethods.

1.1.21.2.70 NativeMethods.GetHBitmap Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetHBitmapW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern IntPtr GetHBitmap([MarshalAs(UnmanagedType.LPWStr)] string Text, int  
Margin, int Size, int Level);
```

Remarks

This is GetHBitmap, a member of class NativeMethods.

1.1.21.2.71 NativeMethods.GetISOCODE Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetISOCODEW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetISOCODE([MarshalAs(UnmanagedType.LPWStr)] string Nationality,  
StringBuilder IsoCode, int BufferSize);
```

Remarks

This is GetISOCODE, a member of class NativeMethods.

1.1.21.2.72 NativeMethods.GetMD5 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetMD5", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetMD5(byte[] source, int sourceSize, byte[] buffer, int  
bufferSize);
```

Remarks

This is GetMD5, a member of class NativeMethods.

1.1.21.2.73 NativeMethods.GetReaderIndex Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetReaderIndexW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int GetReaderIndex([MarshalAs(UnmanagedType.LPWStr)] string  
ReaderName);
```

Remarks

This is GetReaderIndex, a member of class NativeMethods.

1.1.21.2.74 NativeMethods.GetReaderName Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetReaderNameW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int GetReaderName(int readerNumber, StringBuilder StrDest, int Count);
```

Remarks

This is GetReaderName, a member of class NativeMethods.

1.1.21.2.75 NativeMethods.GetReaderNameLen Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetReaderNameLenW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int GetReaderNameLen(int readerNumber);
```

Remarks

This is GetReaderNameLen, a member of class NativeMethods.

1.1.21.2.76 NativeMethods.GetReadersCount Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetReadersCount", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int GetReadersCount();
```

Remarks

This is GetReadersCount, a member of class NativeMethods.

1.1.21.2.77 NativeMethods.GetSHA1 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetSHA1", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetSHA1(byte[] source, int sourceSize, byte[] buffer, int  
bufferSize);
```

Remarks

This is GetSHA1, a member of class NativeMethods.

1.1.21.2.78 NativeMethods.GetSHA256 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetSHA256", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetSHA256(byte[] source, int sourceSize, byte[] buffer, int  
bufferSize);
```

Remarks

This is GetSHA256, a member of class NativeMethods.

1.1.21.2.79 NativeMethods.GetSHA384 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetSHA384", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetSHA384(byte[] source, int sourceSize, byte[] buffer, int  
bufferSize);
```

Remarks

This is GetSHA384, a member of class NativeMethods.

1.1.21.2.80 NativeMethods.GetSHA512 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetSHA512", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetSHA512(byte[] source, int sourceSize, byte[] buffer, int  
bufferSize);
```

Remarks

This is GetSHA512, a member of class NativeMethods.

1.1.21.2.81 NativeMethods.GetSelectedReaderIndex Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetSelectedReaderIndex", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern int GetSelectedReaderIndex();
```

Remarks

This is GetSelectedReaderIndex, a member of class NativeMethods.

1.1.21.2.82 NativeMethods.GetStartup Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "GetStartupW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool GetStartup([MarshalAs(UnmanagedType.LPWStr)] string AppName);
```

Remarks

This is GetStartup, a member of class NativeMethods.

1.1.21.2.83 NativeMethods.HibernateWindows Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "HibernateWindows", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool HibernateWindows();
```

Remarks

This is HibernateWindows, a member of class NativeMethods.

1.1.21.2.84 NativeMethods.IgnoreHardwareEvents Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IgnoreHardwareEvents", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void IgnoreHardwareEvents(bool value);
```

Remarks

This is IgnoreHardwareEvents, a member of class NativeMethods.

1.1.21.2.85 NativeMethods.IgnoreServiceEvents Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IgnoreServiceEvents", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void IgnoreServiceEvents(bool value);
```

Remarks

This is IgnoreServiceEvents, a member of class NativeMethods.

1.1.21.2.86 NativeMethods.InitializeContainer Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "InitializeContainer", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern IntPtr InitializeContainer();
```

Remarks

This is InitializeContainer, a member of class NativeMethods.

1.1.21.2.87 NativeMethods.IsAnimatedGIF Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsAnimatedGIFW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsAnimatedGIF([MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is IsAnimatedGIF, a member of class NativeMethods.

1.1.21.2.88 NativeMethods.IsCardActivatedEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsCardActivatedEx", CharSet = CharSet.Unicode,  
CallingConvention = CallingConvention.StdCall)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsCardActivatedEx(int readerNumber);
```

Remarks

This is IsCardActivatedEx, a member of class NativeMethods.

1.1.21.2.89 NativeMethods.IsCardPresentEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsCardPresentEx", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsCardPresentEx(int readerNumber);
```

Remarks

This is IsCardPresentEx, a member of class NativeMethods.

1.1.21.2.90 NativeMethods.IsCardStillInsertedEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsCardStillInsertedEx", CharSet = CharSet.Unicode,
CallingConvention = CallingConvention.StdCall)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool IsCardStillInsertedEx(int readerNumber);
```

Remarks

This is IsCardStillInsertedEx, a member of class NativeMethods.

1.1.21.2.91 NativeMethods.IsConnectedToInternet Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsConnectedToInternet", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool IsConnectedToInternet();
```

Remarks

This is IsConnectedToInternet, a member of class NativeMethods.

1.1.21.2.92 NativeMethods.IsDirectory Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsDirectoryW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool IsDirectory([MarshalAs(UnmanagedType.LPWStr)] string FolderName);
```

Remarks

This is IsDirectory, a member of class NativeMethods.

1.1.21.2.93 NativeMethods.IsEIDCardEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsEIDCardEx", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool IsEIDCardEx(int readerNumber);
```

Remarks

This is IsEIDCardEx, a member of class NativeMethods.

1.1.21.2.94 NativeMethods.IsEngineActive Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsEngineActive", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool IsEngineActive();
```

Remarks

This is IsEngineActive, a member of class NativeMethods.

1.1.21.2.95 NativeMethods.IsMale Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsMaleW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsMale([In, Out] EIDIdentity Identity);
```

Remarks

This is IsMale, a member of class NativeMethods.

1.1.21.2.96 NativeMethods.IsMediaCenter Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsMediaCenter", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsMediaCenter();
```

Remarks

This is IsMediaCenter, a member of class NativeMethods.

1.1.21.2.97 NativeMethods.IsMetroActive Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsMetroActive", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsMetroActive();
```

Remarks

This is IsMetroActive, a member of class NativeMethods.

1.1.21.2.98 NativeMethods.IsMultiTouchReady Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsMultiTouchReady", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsMultiTouchReady();
```

Remarks

This is IsMultiTouchReady, a member of class NativeMethods.

1.1.21.2.99 NativeMethods.IsTabletPC Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsTabletPC", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsTabletPC();
```

Remarks

This is IsTabletPC, a member of class NativeMethods.

1.1.21.2.100 NativeMethods.IsUnicodeFile Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsUnicodeFileW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsUnicodeFile([MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is IsUnicodeFile, a member of class NativeMethods.

1.1.21.2.101 NativeMethods.IsValidFileName Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsValidFileNameW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsValidFileName([MarshalAs(UnmanagedType.LPWStr)] string  
fileName);
```

Remarks

This is IsValidFileName, a member of class NativeMethods.

1.1.21.2.102 NativeMethods.IsValidPathName Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsValidPathNameW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsValidPathName([MarshalAs(UnmanagedType.LPWStr)] string  
fileName);
```

Remarks

This is IsValidPathName, a member of class NativeMethods.

1.1.21.2.103 NativeMethods.IsWindows10 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsWindows10", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsWindows10();
```

Remarks

This is IsWindows10, a member of class NativeMethods.

1.1.21.2.104 NativeMethods.IsWindows7 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsWindows7", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsWindows7();
```

Remarks

This is IsWindows7, a member of class NativeMethods.

1.1.21.2.105 NativeMethods.IsWindows8 Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsWindows8", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsWindows8();
```

Remarks

This is IsWindows8, a member of class NativeMethods.

1.1.21.2.106 NativeMethods.IsWindowsVista Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsWindowsVista", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsWindowsVista();
```

Remarks

This is IsWindowsVista, a member of class NativeMethods.

1.1.21.2.107 NativeMethods.IsWindowsXP Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "IsWindowsXP", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool IsWindowsXP();
```

Remarks

This is IsWindowsXP, a member of class NativeMethods.

1.1.21.2.108 NativeMethods.LoadCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "LoadCertificateW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void LoadCertificate([MarshalAs(UnmanagedType.LPWStr)] string  
fileName, [In, Out] EIDCertificate Certificate);
```

Remarks

This is LoadCertificate, a member of class NativeMethods.

1.1.21.2.109 NativeMethods.LoadPhoto Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "LoadPhotoW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void LoadPhoto([In, Out] EIDPicture Photo,  
[MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is LoadPhoto, a member of class NativeMethods.

1.1.21.2.110 NativeMethods.PathUnExpandEnvStrings Method

C#

```
[DllImport("shlwapi.dll", CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool PathUnExpandEnvStrings([MarshalAs(UnmanagedType.LPWSTR)] string  
pszPath, [Out] StringBuilder pszBuf, int cchBuf);
```

Remarks

This is PathUnExpandEnvStrings, a member of class NativeMethods.

1.1.21.2.111 NativeMethods.PortAvailable Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "PortAvailable", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool PortAvailable(int portNumber);
```

Remarks

This is PortAvailable, a member of class NativeMethods.

1.1.21.2.112 NativeMethods.ReadAddressEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ReadAddressExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ReadAddressEx(int readerNumber, [In, Out] EIDAddress address);
```

Remarks

This is ReadAddressEx, a member of class NativeMethods.

1.1.21.2.113 NativeMethods.ReadAuthenticationCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ReadAuthenticationCertificate", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ReadAuthenticationCertificate([In, Out] EIDCertificate  
Certificate);
```

Remarks

This is ReadAuthenticationCertificate, a member of class NativeMethods.

1.1.21.2.114 NativeMethods.ReadCaCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ReadCaCertificate", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ReadCaCertificate([In, Out] EIDCertificate Certificate);
```

Remarks

This is ReadCaCertificate, a member of class NativeMethods.

1.1.21.2.115 NativeMethods.ReadIdentityEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ReadIdentityExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ReadIdentityEx(int readerNumber, [In, Out] EIDIdentity identity);
```

Remarks

This is ReadIdentityEx, a member of class NativeMethods.

1.1.21.2.116 NativeMethods.ReadNonRepudiationCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ReadNonRepudiationCertificate", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ReadNonRepudiationCertificate([In, Out] EIDCertificate  
Certificate);
```

Remarks

This is ReadNonRepudiationCertificate, a member of class NativeMethods.

1.1.21.2.117 NativeMethods.ReadPhotoEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ReadPhotoEx", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ReadPhotoEx(int readerNumber, [In, Out] EIDPicture Photo);
```

Remarks

This is ReadPhotoEx, a member of class NativeMethods.

1.1.21.2.118 NativeMethods.ReadRootCaCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ReadRootCaCertificate", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ReadRootCaCertificate([In, Out] EIDCertificate Certificate);
```

Remarks

This is ReadRootCaCertificate, a member of class NativeMethods.

1.1.21.2.119 NativeMethods.ReadRrnCertificate Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ReadRrnCertificate", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ReadRrnCertificate([In, Out] EIDCertificate Certificate);
```

Remarks

This is ReadRrnCertificate, a member of class NativeMethods.

1.1.21.2.120 NativeMethods.RecycleBinEmpty Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "RecycleBinEmpty", CharSet = CharSet.Unicode,
CallingConvention = CallingConvention.StdCall)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool RecycleBinEmpty();
```

Remarks

This is RecycleBinEmpty, a member of class NativeMethods.

1.1.21.2.121 NativeMethods.ReloadReadersList Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ReloadReadersList", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
public static extern void ReloadReadersList();
```

Remarks

This is ReloadReadersList, a member of class NativeMethods.

1.1.21.2.122 NativeMethods.RemoveCallback Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "RemoveCallback", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
public static extern void RemoveCallback();
```

Remarks

This is RemoveCallback, a member of class NativeMethods.

1.1.21.2.123 NativeMethods.RemoveStartup Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "RemoveStartupW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
public static extern void RemoveStartup([MarshalAs(UnmanagedType.LPWStr)] string AppName);
```

Remarks

This is RemoveStartup, a member of class NativeMethods.

1.1.21.2.124 NativeMethods.SaveAuthenticationCertificateEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SaveAuthenticationCertificateExW",
CallingConvention = CallingConvention.StdCall, CharSet = CharSet.Unicode)]
public static extern void SaveAuthenticationCertificateEx([MarshalAs(UnmanagedType.LPWStr)]
string fileName, int readerNumber);
```

Remarks

This is SaveAuthenticationCertificateEx, a member of class NativeMethods.

1.1.21.2.125 NativeMethods.SaveCaCertificateEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SaveCaCertificateExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void SaveCaCertificateEx([MarshalAs(UnmanagedType.LPWStr)] string  
fileName, int readerNumber);
```

Remarks

This is SaveCaCertificateEx, a member of class NativeMethods.

1.1.21.2.126 NativeMethods.SaveCardToToXMLStreamExA Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SaveCardToToXMLStreamExA", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Ansi, BestFitMapping = false,  
ThrowOnUnmappableChar = true, ExactSpelling = true)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SaveCardToToXMLStreamExA(int readerNumber, IntPtr buffer);
```

Remarks

This is SaveCardToToXMLStreamExA, a member of class NativeMethods.

1.1.21.2.127 NativeMethods.SaveCardToToXMLStreamExW Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SaveCardToToXMLStreamExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SaveCardToToXMLStreamExW(int readerNumber, IntPtr buffer);
```

Remarks

This is SaveCardToToXMLStreamExW, a member of class NativeMethods.

1.1.21.2.128 NativeMethods.SaveCardToXmlEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SaveCardToXmlExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SaveCardToXmlEx(int readerNumber,  
[MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is SaveCardToXmlEx, a member of class NativeMethods.

1.1.21.2.129 NativeMethods.SaveCardToXmlExAnsi Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SaveCardToXmlExA", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Ansi, BestFitMapping = false,  
ThrowOnUnmappableChar = true, ExactSpelling = true)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SaveCardToXmlExAnsi(int readerNumber,  
[MarshalAs(UnmanagedType.LPStr)] string fileName);
```

Remarks

This is SaveCardToXmlExAnsi, a member of class NativeMethods.

1.1.21.2.130 NativeMethods.SaveContainer Method**C#**

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SaveContainer", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SaveContainer(IntPtr container, [MarshalAs(UnmanagedType.LPWSTR)]  
string fileName);
```

Remarks

This is SaveContainer, a member of class NativeMethods.

1.1.21.2.131 NativeMethods.SaveNonRepudiationCertificateEx Method**C#**

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SaveNonRepudiationCertificateExW",  
CallingConvention = CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void SaveNonRepudiationCertificateEx([MarshalAs(UnmanagedType.LPWSTR)]  
string fileName, int readerNumber);
```

Remarks

This is SaveNonRepudiationCertificateEx, a member of class NativeMethods.

1.1.21.2.132 NativeMethods.SavePersonCsvToStreamA Method**C#**

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SavePersonCsvToStreamA", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Ansi, BestFitMapping = false,  
ThrowOnUnmappableChar = true, ExactSpelling = true)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SavePersonCsvToStreamA(int readerNumber, IntPtr buffer);
```

Remarks

This is SavePersonCsvToStreamA, a member of class NativeMethods.

1.1.21.2.133 NativeMethods.SavePersonCsvToStreamW Method**C#**

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SavePersonCsvToStreamW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SavePersonCsvToStreamW(int readerNumber, IntPtr buffer);
```

Remarks

This is SavePersonCsvToStreamW, a member of class NativeMethods.

1.1.21.2.134 NativeMethods.SavePersonToCsvEx Method**C#**

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SavePersonToCsvExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SavePersonToCsvEx(int readerNumber,
```



```
[MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is SavePersonToCsvEx, a member of class NativeMethods.

1.1.21.2.135 NativeMethods.SavePersonToCsvExAnsi Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SavePersonToCsvExA", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Ansi, BestFitMapping = false,  
ThrowOnUnmappableChar = true, ExactSpelling = true)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SavePersonToCsvExAnsi(int readerNumber,  
[MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is SavePersonToCsvExAnsi, a member of class NativeMethods.

1.1.21.2.136 NativeMethods.SavePhotoAsBitmapEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SavePhotoAsBitmapExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SavePhotoAsBitmapEx(int readerNumber,  
[MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is SavePhotoAsBitmapEx, a member of class NativeMethods.

1.1.21.2.137 NativeMethods.SavePhotoAsJpegEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SavePhotoAsJpegExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SavePhotoAsJpegEx(int readerNumber,  
[MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is SavePhotoAsJpegEx, a member of class NativeMethods.

1.1.21.2.138 NativeMethods.SaveRootCaCertificateEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SaveRootCaCertificateExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void SaveRootCaCertificateEx([MarshalAs(UnmanagedType.LPWStr)] string  
fileName, int readerNumber);
```

Remarks

This is SaveRootCaCertificateEx, a member of class NativeMethods.

1.1.21.2.139 NativeMethods.SaveRrnCertificateEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SaveRrnCertificateExW", CallingConvention =
```

```
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
public static extern void SaveRrnCertificateEx([MarshalAs(UnmanagedType.LPWStr)] string
fileName, int readerNumber);
```

Remarks

This is SaveRrnCertificateEx, a member of class NativeMethods.

1.1.21.2.140 NativeMethods.SelectReader Method**C#**

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SelectReader", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool SelectReader(int readerNumber);
```

Remarks

This is SelectReader, a member of class NativeMethods.

1.1.21.2.141 NativeMethods.SelectReaderByName Method**C#**

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SelectReaderByNameW", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool SelectReaderByName([MarshalAs(UnmanagedType.LPWStr)] string
ReaderName);
```

Remarks

This is SelectReaderByName, a member of class NativeMethods.

1.1.21.2.142 NativeMethods.SendAPDU Method**C#**

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SendAPDU", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Ansi, BestFitMapping = false,
ThrowOnUnmappableChar = true, ExactSpelling = true)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool SendAPDU(int readerNumber, byte[] apdu, int apduLen, byte[]
result, ref int len);
```

Remarks

This is SendAPDU, a member of class NativeMethods.

1.1.21.2.143 NativeMethods.SetCallback Method**C#**

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SetCallback", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
public static extern void SetCallback(ReaderCallbackDelegate callback, IntPtr userContext);
```

Remarks

This is SetCallback, a member of class NativeMethods.

1.1.21.2.144 NativeMethods.SetContainerCanonization Method**C#**

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SetContainerCanonization", CallingConvention =
```

```
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SetContainerCanonization(IntPtr container,  
[MarshalAs(UnmanagedType.LPWSTR)] string canonization);
```

Remarks

This is SetContainerCanonization, a member of class NativeMethods.

1.1.21.2.145 NativeMethods.SetContainerTimeServer Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SetContainerTimeServer", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SetContainerTimeServer(IntPtr container,  
[MarshalAs(UnmanagedType.LPWSTR)] string timeServer);
```

Remarks

This is SetContainerTimeServer, a member of class NativeMethods.

1.1.21.2.146 NativeMethods.SetStartup Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SetStartupW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void SetStartup([MarshalAs(UnmanagedType.LPWSTR)] string AppName,  
[MarshalAs(UnmanagedType.LPWSTR)] string AppPath);
```

Remarks

This is SetStartup, a member of class NativeMethods.

1.1.21.2.147 NativeMethods.ShellCopyFile Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ShellCopyFileW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void ShellCopyFile([MarshalAs(UnmanagedType.LPWSTR)] string oldName,  
[MarshalAs(UnmanagedType.LPWSTR)] string NewName);
```

Remarks

This is ShellCopyFile, a member of class NativeMethods.

1.1.21.2.148 NativeMethods.ShowError Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ShowError", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void ShowError(int ErrorCode);
```

Remarks

This is ShowError, a member of class NativeMethods.

1.1.21.2.149 NativeMethods.ShutdownWindows Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "ShutdownWindows", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
```

```
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool ShutdownWindows(int Flags);
```

Remarks

This is ShutdownWindows, a member of class NativeMethods.

1.1.21.2.150 NativeMethods.SignPdfFile Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SignPdfFile", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SignPdfFile(int readerNumber, [MarshalAs(UnmanagedType.LPWStr)]  
string fileName);
```

Remarks

This is SignPdfFile, a member of class NativeMethods.

1.1.21.2.151 NativeMethods.SignPdfFileEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SignPdfFileEx", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SignPdfFileEx(IntPtr container, [MarshalAs(UnmanagedType.LPWStr)]  
string fileName);
```

Remarks

This is SignPdfFileEx, a member of class NativeMethods.

1.1.21.2.152 NativeMethods.StartEngine Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "StartEngine", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool StartEngine();
```

Remarks

This is StartEngine, a member of class NativeMethods.

1.1.21.2.153 NativeMethods.StopEngine Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "StopEngine", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void StopEngine();
```

Remarks

This is StopEngine, a member of class NativeMethods.

1.1.21.2.154 NativeMethods.StripFileName Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "StripFileNameW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void StripFileName([MarshalAs(UnmanagedType.LPWStr)] string fileName,
```

```
StringBuilder sb);
```

Remarks

This is StripFileName, a member of class NativeMethods.

1.1.21.2.155 NativeMethods.SuspendWindows Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "SuspendWindows", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool SuspendWindows();
```

Remarks

This is SuspendWindows, a member of class NativeMethods.

1.1.21.2.156 NativeMethods.TurnMonitorOff Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "TurnMonitorOff", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void TurnMonitorOff();
```

Remarks

This is TurnMonitorOff, a member of class NativeMethods.

1.1.21.2.157 NativeMethods.TurnMonitorOn Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "TurnMonitorOn", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
public static extern void TurnMonitorOn();
```

Remarks

This is TurnMonitorOn, a member of class NativeMethods.

1.1.21.2.158 NativeMethods.VerifyContainer Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "VerifyContainer", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool VerifyContainer(IntPtr container,  
[MarshalAs(UnmanagedType.LPWStr)] string fileName);
```

Remarks

This is VerifyContainer, a member of class NativeMethods.

1.1.21.2.159 NativeMethods.VerifyPinEx Method

C#

```
[DllImport(DLL_FILE_NAME, EntryPoint = "VerifyPinExW", CallingConvention =  
CallingConvention.StdCall, CharSet = CharSet.Unicode)]  
[return: MarshalAs(UnmanagedType.Bool)]  
public static extern bool VerifyPinEx(int readerNumber, [MarshalAs(UnmanagedType.LPWStr)]  
string Value);
```

Remarks

This is VerifyPinEx, a member of class NativeMethods.

1.1.21.2.160 NativeMethods.VerifySignature Method

C#

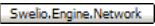
```
[DllImport(DLL_FILE_NAME, EntryPoint = "VerifySignature", CallingConvention =
CallingConvention.StdCall, CharSet = CharSet.Unicode)]
[return: MarshalAs(UnmanagedType.Bool)]
public static extern bool VerifySignature([In, Out] EIDCertificate Certificate, byte[]
dataHash, int hashSize, byte[] signature, int signatureSize);
```

Remarks

This is VerifySignature, a member of class NativeMethods.

1.1.22 Network Class

Inheritance Hierarchy



C#

```
public static class Network;
```

File

File: Network.cs (see page 134)
Namespace: Swelio.Engine (see page 1)

Remarks

This is class Swelio.Engine.Network.

Members

Network Methods

	Name	Description
	PortAvailable (see page 112)	Ports the available.

Network Properties

	Name	Description
	CurrentIPAddress (see page 112)	Gets the current IP address.
	IsConnectedToInternet (see page 112)	Gets a value indicating whether PC is connected to internet.

Network Methods

	Name	Description
	PortAvailable (see page 112)	Ports the available.

Network Properties

	Name	Description
	CurrentIPAddress (see page 112)	Gets the current IP address.
	IsConnectedToInternet (see page 112)	Gets a value indicating whether PC is connected to internet.

1.1.22.1 Network Methods

1.1.22.1.1 Network.PortAvailable Method

Ports the available.

C#

```
public static bool PortAvailable(int portNumber);
```

Parameters

Parameters	Description
int portNumber	The port number.

1.1.22.2 Network Properties

1.1.22.2.1 Network.CurrentIPAddress Property

Gets the current IP address.

C#

```
public static string CurrentIPAddress;
```

1.1.22.2.2 Network.IsConnectedToInternet Property

Gets a value indicating whether PC is connected to internet.

C#

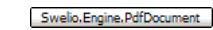
```
public static bool IsConnectedToInternet;
```

Description

true if this PC is connected to internet; otherwise, false.

1.1.23 PdfDocument Class

Inheritance Hierarchy



C#

```
public class PdfDocument;
```

File

File: PdfDocument.cs (🔗 see page 134)
Namespace: Swelio.Engine (🔗 see page 1)

Remarks







This is class Swelio.Engine.PdfDocument.

Members



Methods

	Name	Description
🔗	PdfDocument (🔗 see page 113)	This is PdfDocument, a member of class PdfDocument.







PdfDocument Methods

	Name	Description
	Close ( see page 113)	Closes container. No any future calls are possible after closing container
	SelectCertificate ( see page 113)	Selects the certificate.
	Sign ( see page 114)	Sign PDF file using selected certificate

Methods

	Name	Description
	PdfDocument ( see page 113)	This is PdfDocument, a member of class PdfDocument.

PdfDocument Methods

	Name	Description
	Close ( see page 113)	Closes container. No any future calls are possible after closing container
	SelectCertificate ( see page 113)	Selects the certificate.
	Sign ( see page 114)	Sign PDF file using selected certificate

1.1.23.1 PdfDocument.PdfDocument Constructor

C#

```
public PdfDocument(string fileName);
```

Remarks

This is PdfDocument, a member of class PdfDocument.

1.1.23.2 PdfDocument Methods

1.1.23.2.1 PdfDocument.Close Method

Closes container. No any future calls are possible after closing container

C#

```
public void Close();
```

1.1.23.2.2 SelectCertificate Method

1.1.23.2.2.1 PdfDocument.SelectCertificate Method ()

Selects the certificate.

C#

```
public bool SelectCertificate();
```

Returns

True - if certificate is selected, otherwise - false

1.1.23.2.2.2 PdfDocument.SelectCertificate Method (int)

Selects the certificate.

C#

```
public bool SelectCertificate(int readerNumber);
```

Parameters

Parameters	Description
int readerNumber	The reader number.

Returns

True - if certificate is selected, otherwise - false

1.1.23.2.2.3 PdfDocument.SelectCertificate Method (string, string)

Selects the certificate.

C#

```
public bool SelectCertificate(string fileName, string password);
```

Parameters

Parameters	Description
string fileName	Name of the certificate file in pfx format
string password	The password.

Returns

True - if certificate is selected, otherwise - false

1.1.23.2.3 PdfDocument.Sign Method

Sign PDF file using selected certificate

C#

```
public bool Sign();
```

1.1.24 PostalAddress Class

Inheritance Hierarchy



C#

```
public class PostalAddress;
```

File

File: PostalAddress.cs (🔗 see page 135)

Namespace: Swelio.Engine (🔗 see page 1)

Remarks





This is class Swelio.Engine.PostalAddress.

Members

Methods

	Name	Description
🔗	PostalAddress (🔗 see page 115)	This is PostalAddress, a member of class PostalAddress.





PostalAddress Properties

	Name	Description
	House (🔗 see page 115)	This is House, a member of class PostalAddress.
	Municipality (🔗 see page 115)	This is Municipality, a member of class PostalAddress.
	Street (🔗 see page 115)	This is Street, a member of class PostalAddress.
	Zip (🔗 see page 116)	This is Zip, a member of class PostalAddress.

Methods

	Name	Description
	PostalAddress (🔗 see page 115)	This is PostalAddress, a member of class PostalAddress.

PostalAddress Properties

	Name	Description
	House (🔗 see page 115)	This is House, a member of class PostalAddress.
	Municipality (🔗 see page 115)	This is Municipality, a member of class PostalAddress.
	Street (🔗 see page 115)	This is Street, a member of class PostalAddress.
	Zip (🔗 see page 116)	This is Zip, a member of class PostalAddress.

1.1.24.1 PostalAddress.PostalAddress Constructor

C#

```
public PostalAddress(Address value);
```

Remarks

This is PostalAddress, a member of class PostalAddress.

1.1.24.2 PostalAddress Properties

1.1.24.2.1 PostalAddress.House Property

C#

```
public string House;
```

Remarks

This is House, a member of class PostalAddress.

1.1.24.2.2 PostalAddress.Municipality Property

C#

```
public string Municipality;
```

Remarks

This is Municipality, a member of class PostalAddress.

1.1.24.2.3 PostalAddress.Street Property

C#

```
public string Street;
```

Remarks

This is Street, a member of class PostalAddress.

1.1.24.2.4 PostalAddress.Zip Property

C#

```
public string Zip;
```

Remarks

This is Zip, a member of class PostalAddress.

1.1.25 QRCode Class

QR Code encoder class

Inheritance Hierarchy



C#

```
public static class QRCode;
```

File

File: QRCode.cs (see page 135)
Namespace: Swelio.Engine (see page 1)

Members

QRCode Methods

	Name	Description
GenerateBitmap (see page 116)	GenerateBitmap	Generates the bitmap.
GeneratePng (see page 117)	GeneratePng	Generates the PNG.
GetBitmap (see page 118)	GetBitmap	Gets the bitmap.

QRCode Methods

	Name	Description
GenerateBitmap (see page 116)	GenerateBitmap	Generates the bitmap.
GeneratePng (see page 117)	GeneratePng	Generates the PNG.
GetBitmap (see page 118)	GetBitmap	Gets the bitmap.

1.1.25.1 QRCode Methods

1.1.25.1.1 GenerateBitmap Method

1.1.25.1.1.1 QRCode.GenerateBitmap Method (string, string, ErrorCorrectionLevel)

Generates the bitmap.

C#

```
public static void GenerateBitmap(string fileName, string text, ErrorCorrectionLevel level);
```

Parameters

Parameters	Description
string fileName	Name of the file.
string text	The text.

1.1.25.1.1.2 QRCode.GenerateBitmap Method (string, string, int, int, ErrorCorrectionLevel)

Generates the bitmap file with encoded string

C#

```
public static void GenerateBitmap(string fileName, string text, int margin, int pixelSize, ErrorCorrectionLevel level);
```

Parameters

Parameters	Description
string fileName	Name of the file.
string text	The text to encode.
int margin	The margin.
int pixelSize	Size of the pixel.

1.1.25.1.2 GeneratePng Method**1.1.25.1.2.1 QRCode.GeneratePng Method (string, string, ErrorCorrectionLevel)**

Generates the PNG.

C#

```
public static void GeneratePng(string fileName, string text, ErrorCorrectionLevel level);
```

Parameters

Parameters	Description
string fileName	Name of the file.
string text	The text.

1.1.25.1.2.2 QRCode.GeneratePng Method (string, string, int, int, ErrorCorrectionLevel)

Generates the PNG.

C#

```
public static void GeneratePng(string fileName, string text, int margin, int pixelSize, ErrorCorrectionLevel level);
```

Parameters

Parameters	Description
string fileName	Name of the file.
string text	The text.
int margin	The margin.
int pixelSize	Size of the pixel.

1.1.25.1.3 GetBitmap Method

1.1.25.1.3.1 QRCode.GetBitmap Method (string, ErrorCorrectionLevel)

Gets the bitmap.

C#

```
public static Bitmap GetBitmap(string text, ErrorCorrectionLevel level);
```

Parameters

Parameters	Description
string text	The text.

1.1.25.1.3.2 QRCode.GetBitmap Method (string, int, int, ErrorCorrectionLevel)

Gets the bitmap.

C#

```
public static Bitmap GetBitmap(string text, int margin, int pixelSize, ErrorCorrectionLevel level);
```

Parameters

Parameters	Description
string text	The text.
int margin	The margin.
int pixelSize	Size of the pixel.

1.1.26 RecycleBin Class

Send ( see page 119) files directly to the recycle bin.

Inheritance Hierarchy

Swelio.Engine.RecycleBin

C#

```
public static class RecycleBin;
```










File

File: RecycleBin.cs ( see page 135)

Namespace: Swelio.Engine ( see page 1)

Members








RecycleBin Methods

	Name	Description
  S	Clear ( see page 119)	This is Clear, a member of class RecycleBin.
  S	Send ( see page 119)	Send file to recycle bin. Display dialog, display warning if files are too big to fit
  S	SendSilent ( see page 119)	Send ( see page 119) file silently to recycle bin. Surpress dialog, surpress errors, delete if too large.

RecycleBin Properties

	Name	Description
 RS	IsEmpty ( see page 119)	Gets a value indicating whether thee recycle bin is empty.

RecycleBin Methods

	Name	Description
	Clear ( see page 119)	This is Clear, a member of class RecycleBin.
	Send ( see page 119)	Send file to recycle bin. Display dialog, display warning if files are too big to fit
	SendSilent ( see page 119)	Send ( see page 119) file silently to recycle bin. Surpress dialog, surpress errors, delete if too large.

RecycleBin Properties

	Name	Description
	IsEmpty ( see page 119)	Gets a value indicating whether thee recycle bin is empty.

1.1.26.1 RecycleBin Methods

1.1.26.1.1 RecycleBin.Clear Method

C#

```
public static void Clear();
```

Remarks

This is Clear, a member of class RecycleBin.

1.1.26.1.2 RecycleBin.Send Method

Send file to recycle bin. Display dialog, display warning if files are too big to fit


C#

```
public static void Send(string path);
```

Parameters

Parameters	Description
string path	Location of directory or file to recycle

1.1.26.1.3 RecycleBin.SendSilent Method

Send ( see page 119) file silently to recycle bin. Surpress dialog, surpress errors, delete if too large.

C#

```
public static void SendSilent(string path);
```

Parameters

Parameters	Description
string path	Location of directory or file to recycle

1.1.26.2 RecycleBin Properties

1.1.26.2.1 RecycleBin.IsEmpty Property

Gets a value indicating whether thee recycle bin is empty.

C#

```
public static bool IsEmpty;
```

Description

true if recycle bin is empty; otherwise, false.

1.1.27 WindowsOperations Class

Windows power management class

Inheritance Hierarchy

Swelio.Engine.WindowsOperations

C#

```
public static class WindowsOperations;
```

File

File: WindowsOperations.cs (see page 135)

Namespace: Swelio.Engine (see page 1)

Members

WindowsOperations Methods

	Name	Description
💡💰	Hibernate (see page 120)	Hibernate computer
💡💰	Shutdown (see page 120)	Shutdown Computer
💡💰	Suspend (see page 121)	Suspends computer

WindowsOperations Methods

	Name	Description
💡💰	Hibernate (see page 120)	Hibernate computer
💡💰	Shutdown (see page 120)	Shutdown Computer
💡💰	Suspend (see page 121)	Suspends computer

1.1.27.1 WindowsOperations Methods

1.1.27.1.1 WindowsOperations.Hibernate Method

Hibernate computer

C#

```
public static void Hibernate();
```

1.1.27.1.2 WindowsOperations.Shutdown Method

Shutdown Computer

C#

```
public static void Shutdown(ShutdownOption option);
```

Parameters

Parameters	Description
ShutdownOption option	The option.

1.1.27.1.3 WindowsOperations.Suspend Method

Suspends computer

C#

```
public static void Suspend();
```

1.1.28 Swelio.Engine.CardEvent Enumeration

The code of the card event

C#

```
internal enum CardEvent : int {  
    CardInsert = 1,  
    CardRemove = 2,  
    ReadersChange = 3,  
    UnknownEvent = 0  
}
```

File

File: CardEvent.cs ([see page 130](#))

Namespace: Swelio.Engine ([see page 1](#))

1.1.29 Swelio.Engine.CertificateType Enumeration

The type of the cerificate

C#

```
public enum CertificateType {  
    CaCertificate,  
    RootCaCertificate,  
    RrnCertificate,  
    AuthenticationCertificate,  
    NonRepudiationCertificate  
}
```

File

File: CertificateType.cs ([see page 131](#))

Namespace: Swelio.Engine ([see page 1](#))

1.1.30 Swelio.Engine.ChangeWindowMessageFilterFlags Enumeration

C#

```
internal enum ChangeWindowMessageFilterFlags : int {
```



```
Add = 1,  
Remove = 2  
}
```

File

File: NativeTypes.cs (see page 133)

Namespace: Swelio.Engine (see page 1)

Remarks

This is record Swelio.Engine.ChangeWindowMessageFilterFlags.

1.1.31 Swelio.Engine.DocumentType Enumeration

C#

```
public enum DocumentType {  
    Unknown,  
    BelgianCitizen,  
    EuropeanCommunity,  
    NonEuropeanCommunity,  
    KidsCard,  
    BootstrapCard,  
    HabilitationCard,  
    ForeignerCard  
}
```

File

File: DocumentType.cs (see page 131)

Namespace: Swelio.Engine (see page 1)

Remarks

This is record Swelio.Engine.DocumentType.

1.1.32 Swelio.Engine.ErrorCorrectionLevel Enumeration

C#

```
public enum ErrorCorrectionLevel : int {  
    LowQuality,  
    MediumQuality,  
    StandardQuality,  
    HighQuality  
}
```

File

File: QRCode.cs (see page 135)

Namespace: Swelio.Engine (see page 1)

Remarks

This is record Swelio.Engine.ErrorCorrectionLevel.

1.1.33 Swelio.Engine.ExportFormat Enumeration

C#

```
public enum ExportFormat {  
    Csv,  
    Xml  
}
```

File

File: ExportFormat.cs ([see page 131](#))

Namespace: Swelio.Engine ([see page 1](#))

Remarks

This is record Swelio.Engine.ExportFormat.

1.1.34 Swelio.Engine.FileEncoding Enumeration

C#

```
public enum FileEncoding {  
    Ansi,  
    Utf16,  
    Utf8  
}
```

File

File: FileEncoding.cs ([see page 132](#))

Namespace: Swelio.Engine ([see page 1](#))

Remarks

This is record Swelio.Engine.FileEncoding.

1.1.35 Swelio.Engine.Gender Enumeration

C#

```
public enum Gender {  
    Male,  
    Female  
}
```

File

File: Gender.cs ([see page 132](#))

Namespace: Swelio.Engine ([see page 1](#))

Remarks

This is record Swelio.Engine.Gender.

1.1.36 Swelio.Engine.Organization Enumeration

C#

```
public enum Organization {  
    Unknown,  
    SHAPE,  
    NATO,  
    BlueCard,  
    Researcher  
}
```

File

File: Organization.cs ([see page 134](#))

Namespace: Swelio.Engine ([see page 1](#))

Remarks

This is record Swelio.Engine.Organization.

1.1.37 Swelio.Engine.PhotoFormat Enumeration

C#

```
public enum PhotoFormat {  
    Bmp,  
    Jpeg  
}
```

File

File: PhotoFormat.cs ([see page 134](#))

Namespace: Swelio.Engine ([see page 1](#))

Remarks

This is record Swelio.Engine.PhotoFormat.

1.1.38 Swelio.Engine.ShutdownOption Enumeration

Windows shutdown options

C#

```
public enum ShutdownOption {  
    LogOff = 0,  
    PowerOff = 8,  
    Reboot = 2,  
    Shutdown = 1,  
    Suspend = -1,  
    Hibernate = -2  
}
```

File

File: WindowsOperations.cs ([see page 135](#))

Namespace: Swelio.Engine ([see page 1](#))

Members

Members	Description
LogOff = 0	Shuts down all processes running in the security context of the process that called the ExitWindowsEx function. Then it logs the user off.
PowerOff = 8	Shuts down the system and turns off the power. The system must support the power-off feature.
Reboot = 2	Shuts down the system and then restarts the system.
Shutdown = 1	Shuts down the system to a point at which it is safe to turn off the power. All file buffers have been flushed to disk, and all running processes have stopped. If the system supports the power-off feature, the power is also turned off.
Suspend = -1	Suspends the system.
Hibernate = -2	Hibernates the system.

1.1.39 Swelio.Engine.ReaderCallbackDelegate Type

C#

```
[UnmanagedFunctionPointer(CallingConvention.Winapi, CharSet = CharSet.Unicode)]
public delegate void ReaderCallbackDelegate(ref int readerNumber, ref int eventCode, IntPtr
userContext);
```

File

File: NativeMethods.cs (see page 133)

Namespace: Swelio.Engine (see page 1)

Remarks

This is type Swelio.Engine.ReaderCallbackDelegate.

1.1.40 Swelio.Engine.WndProcDelegate Type

C#

```
[UnmanagedFunctionPointer(CallingConvention.Winapi, CharSet = CharSet.Auto)]
internal delegate IntPtr WndProcDelegate(IntPtr hWnd, int msg, IntPtr wParam, IntPtr
lParam);
```

File

File: NativeMethods.cs (see page 133)

Namespace: Swelio.Engine (see page 1)

Remarks

This is type Swelio.Engine.WndProcDelegate.

1.2 Files

The following table lists files in this documentation.

Files

Name	Description
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Namespaces

Name	Description
Swelio.Engine (see page 1)	This is namespace Swelio.Engine.

1.2.2 Algorithm.cs

This is file Algorithm.cs.

Namespaces

Name	Description
Swelio.Engine (see page 1)	This is namespace Swelio.Engine.

1.2.3 Card.cs

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Namespaces

Name	Description
Swelio.Engine (see page 1)	This is namespace Swelio.Engine.

1.2.4 CardDate.cs

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Namespaces

Name	Description
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1.2.5 CardEvent.cs

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1.2.6 CardEventArgs.cs

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Namespaces

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1.2.7 CardNumber.cs

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Namespaces

Name	Description
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1.2.8 CardReader.cs

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Namespaces

Name	Description
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1.2.9 CertificateType.cs

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Namespaces

Name	Description
Swelio.Engine (see page 1)	This is namespace Swelio.Engine.

1.2.10 DocumentContainer.cs

This is file DocumentContainer.cs.

Namespaces

Name	Description
Swelio.Engine (see page 1)	This is namespace Swelio.Engine.

1.2.11 DocumentType.cs

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Namespaces

Name	Description
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1.2.12 Encryption.cs

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Namespaces

Name	Description
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1.2.13 ExportFormat.cs

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Namespaces

Name	Description
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1.2.14 FileEncoding.cs

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Namespaces

Name	Description
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1.2.15 FileOperations.cs

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Namespaces

Name	Description
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1.2.16 Gender.cs

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1.2.17 Identity.cs

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Namespaces

Name	Description
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1.2.18 InteropHelper.cs

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Namespaces

Name	Description
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1.2.19 Manager.cs

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Namespaces

Name	Description
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1.2.20 NationalNumber.cs

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Namespaces

Name	Description
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1.2.21 NativeMethods.cs

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Namespaces

Name	Description
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1.2.22 NativeTypes.cs

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1.2.23 Network.cs

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Name	Description
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1.2.24 Organization.cs

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Namespaces

Name	Description
Swelio.Engine (see page 1)	This is namespace Swelio.Engine.

1.2.25 PdfDocument.cs

This is file PdfDocument.cs.

Namespaces

Name	Description
Swelio.Engine (see page 1)	This is namespace Swelio.Engine.

1.2.26 PhotoFormat.cs

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Namespaces

Name	Description
Swelio.Engine (see page 1)	This is namespace Swelio.Engine.

1.2.27 PostalAddress.cs

This is file PostalAddress.cs.

Namespaces

Name	Description
Swelio.Engine (see page 1)	This is namespace Swelio.Engine.

1.2.28 QRCode.cs

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1.2.29 RecycleBin.cs

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1.2.30 WindowsOperations.cs

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