



EmvLib Reference

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EmvLib Reference

Namespaces

[EmvLib₇](#)

EmvLib Namespace

Classes

[AflEntry](#)⁷, [AflResult](#)⁸, [CAKeyElement](#)⁸, [CAKeys](#)¹⁰, [CaKey](#)¹¹, [CaKeyStore](#)¹³,
[CardNotSupportedExceprion](#)¹³, [EmvConstants](#)¹⁵, [OfflineAuth](#)²¹, [SCardReaderExtensions](#)²⁴,
[SmartApplication](#)²⁵, [SmartCard](#)²⁹, [SmartEmvRecord](#)³², [SmartTag](#)³⁴, [SmartTlv](#)³⁷, [StringTools](#)³⁹, [TlvTools](#)⁴⁰

Enumerations

[CertificateType](#)⁴¹

AflEntry Class

C#

```
public class AflEntry
```

Requirements

Namespace: [EmvLib](#)⁷

Assembly: EmvLib (in)

Fields

[EndRecord](#)⁷, [OfflineRecords](#)⁷, [Sfi](#)⁸, [StartRecord](#)⁸

EndRecord Field

C#

```
public int EndRecord
```

See Also

Applies to: [AflEntry](#)⁷

OfflineRecords Field

C#

```
public int OfflineRecords
```

See Also

Applies to: [AflEntry](#)⁷

Sfi Field

C#

```
public int Sfi
```

See Also

Applies to: [AflEntry](#)₇

StartRecord Field

C#

```
public int StartRecord
```

See Also

Applies to: [AflEntry](#)₇

AflResult Class

C#

```
public class AflResult
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Fields

[AflEntries](#)₈

AflEntries Field

C#

```
new public List<AflEntry> AflEntries
```

See Also

Applies to: [AflResult](#)₈

CAKeyElement Class

C#


```
public class CAKeyElement
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Properties

[CAKey](#)₉, [Expiry](#)₉, [Exponent](#)₉, [Index](#)₁₀, [RID](#)₁₀, [SHA1Hash](#)₁₀

CAKeyElement.CAKey Property

CaKey

C#

```
public string CAKey {get; set;}
```

See Also

Applies to: [CAKeyElement](#)₈

CAKeyElement.Expiry Property

Certificate expiry date Ημερομηνία λήξης πιστοποιητικού

C#

```
public string Expiry {get; set;}
```

See Also

Applies to: [CAKeyElement](#)₈

CAKeyElement.Exponent Property

Ca Key exponent Εκθέτης κλειδιού Ca

C#

```
public string Exponent {get; set;}
```

See Also

Applies to: [CAKeyElement](#)₈

CAKeyElement.Index Property

CA key index Δείκτης κλειδιού CA

C#

```
public string Index {get; set;}
```

See Also

Applies to: [CAKeyElement](#)₈

CAKeyElement.RID Property

Emv Application AID

C#

```
public string RID {get; set;}
```

See Also

Applies to: [CAKeyElement](#)₈

CAKeyElement.SHA1Hash Property

SHA1 hash of the certificate SHA1 hash του πιστοποιητικού

C#

```
public string SHA1Hash {get; set;}
```

See Also

Applies to: [CAKeyElement](#)₈

CAKeys Class

Class that holds the known CA keys from file cakeys.xml Κλάση που περιέχει τα γνωστά κλειδιά CA από το αρχείο cakeys.xml

C#

```
public class CAKeys
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Properties

[CaKeys](#)₁₁

CAKeys.CaKeys Property

Ca keys array. Πίνακας κλειδιών

[System.Xml.Serialization is used to parse the xml file cakeys.xml]

C#

```
[System.Xml.Serialization.XmlElement("CAKeyElement")]  
public CAKeyElement[] CaKeys {get; set;}
```

See Also

Applies to: [CAKeys](#)₁₀

CaKey Class

Το αντικείμενο περιέχει τις πληροφορίες που χρειάζονται για να γίνει Validate το certificate της κάρτας.

C#

```
public class CaKey
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Properties

[Expiry](#)₁₁, [Exponent](#)₁₁, [Index](#)₁₂, [Key](#)₁₂, [Rid](#)₁₂, [SHA1Hash](#)₁₂

CaKey.Expiry Property

C#

```
public string Expiry {get; set;}
```

See Also

Applies to: [CaKey](#)₁₁

CaKey.Exponent Property

C#

```
public string Exponent {get; set;}
```

See Also

Applies to: [CaKey₁₁](#)

CaKey.Index Property

C#

```
public string Index {get; set;}
```

See Also

Applies to: [CaKey₁₁](#)

CaKey.Key Property

C#

```
public string Key {get; set;}
```

See Also

Applies to: [CaKey₁₁](#)

CaKey.Rid Property

C#

```
public string Rid {get; set;}
```

See Also

Applies to: [CaKey₁₁](#)

CaKey.SHA1Hash Property

C#

```
public string SHA1Hash {get; set;}
```

See Also

Applies to: [CaKey₁₁](#)

CaKeyStore Class

Helper class that acting as a key storage manager. Βοηθητική κλάση που ενεργεί ως βασικός διαχειριστής αποθήκευσης.

C#

```
public static class CaKeyStore
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Methods

[GetCaKey](#)₁₃

CaKeyStore.GetCaKey Method

Retreives a CaKey from cakeys.xml Ανάκτηση ενός CaKey από το cdkeys.xml.Αφού φορτωθεί το αρχείο cakeys.xml,γίνεται έυρεση του κλειδιού με βάση τα index και rid

C#

```
public static CaKey GetCaKey(  
    string rid,  
    string index  
)
```

Parameters

rid

index

Returns

The CaKey object. Γίνεται δημιουργία ενός object CaKey, το οποίο επιστρέφεται.

See Also

Applies to: [CaKeyStore](#)₁₃

CardNotSupportedExceprion Class

C#

```
public class CardNotSupportedExceprion : ApplicationException
```

Requirements

Namespace: [EmvLib](#)⁷

Assembly: EmvLib (in)

Constructors

[CardNotSupportedExceprion](#)¹⁴

CardNotSupportedExceprion(SerializationInfo, StreamingContext) Constructor

C#

```
protected CardNotSupportedExceprion(  
    SerializationInfo info,  
    StreamingContext context  
)
```

Parameters

info

context

See Also

Applies to: [CardNotSupportedExceprion](#)¹³

CardNotSupportedExceprion Constructor

C#

```
public CardNotSupportedExceprion()
```

See Also

Applies to: [CardNotSupportedExceprion](#)¹³

CardNotSupportedExceprion(String, Exception) Constructor

C#

```
public CardNotSupportedExceprion(  
    string message,  
    Exception innerException  
)
```

Parameters

message

innerException

See Also

Applies to: [CardNotSupportedExceprion](#)₁₃

CardNotSupportedExceprion(String) Constructor

C#

```
public CardNotSupportedExceprion(  
    string message  
)
```

Parameters

message

See Also

Applies to: [CardNotSupportedExceprion](#)₁₃

EmvConstants Class

Emv Constants used during a transaction. Σταθερές EMV που χρησιμοποιούνται κατά τη διάρκεια μιας συναλλαγής.

C#

```
public static class EmvConstants
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Methods

[getTagDescription](#)₁₆

Structures

[AID](#)₁₆

Enumerations

[EmvOfflineAuthType](#)₁₇, [GpoTemplateFormat](#)₁₇, [ResponceType](#)₁₈

Fields

[AID_LIST](#)₁₈, [AID_LIST_BYTES](#)₁₈, [APDU_RES_DESCRIPTION](#)₁₈, [ApplicationClass](#)₂₀,
[ConstructedDataObject](#)₂₀, [ContextSpecificClass](#)₂₀, [PPSE](#)₁₉, [PSE](#)₁₉, [PdoITags](#)₁₉, [PrimitiveDataObject](#)₂₁,

[PrivateClass](#)₂₁, [SELECT_APDU_HEADER](#)₁₉, [SW_SELECT_OK](#)₁₉, [SeeSubsequentBytes](#)₂₁, [UniversalClass](#)₂₁, [tags](#)₂₀

EmvConstants.getTagDescription Method

C#

```
public static string getTagDescription(  
    string tagname  
)
```

Parameters

tagname

See Also

Applies to: [EmvConstants](#)₁₅

AID Structure

C#

```
public struct AID
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Fields

[AID_MASTERCARD_CLASSIC](#)₁₆, [AID_VISA_CLASSIC](#)₁₇, [AID_VISA_ELECTRON](#)₁₇

See Also

Applies to: [EmvConstants](#)₁₅

AID_MASTERCARD_CLASSIC Field

C#

```
public static readonly byte[] AID_MASTERCARD_CLASSIC
```

See Also

Applies to: [AID](#)₁₆

AID_VISA_CLASSIC Field

C#

```
public static readonly byte[] AID_VISA_CLASSIC
```

See Also

Applies to: [AID₁₆](#)

AID_VISA_ELECTRON Field

C#

```
public static readonly byte[] AID_VISA_ELECTRON
```

See Also

Applies to: [AID₁₆](#)

EmvOfflineAuthType Enumeration

Constant	Value	Description
Cda	256	
Dda	512	
Sda	1024	

Requirements

Namespace: [EmvLib₇](#)

Assembly: EmvLib (in)

See Also

Applies to: [EmvConstants₁₅](#)

GpoTemplateFormat Enumeration

Constant	Value	Description
Format1	128	
Format2	119	

Requirements

Namespace: [EmvLib₇](#)

Assembly: EmvLib (in)

See Also

Applies to: [EmvConstants](#)₁₅

ResponseType Enumeration

Constant	Value	Description
All	3	
Gpo	1	
ReaderRecord	2	
Select	0	

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

See Also

Applies to: [EmvConstants](#)₁₅

AID_LIST Field

C#

```
new public static readonly Dictionary<string, string> AID_LIST
```

See Also

Applies to: [EmvConstants](#)₁₅

AID_LIST_BYTES Field

C#

```
public static readonly byte[][] AID_LIST_BYTES
```

See Also

Applies to: [EmvConstants](#)₁₅

APDU_RES_DESCRIPTION Field

C#

```
new public static readonly Dictionary<byte[], string> APDU_RES_DESCRIPTION
```

See Also

Applies to: [EmvConstants](#)₁₅

PPSE Field

C#

```
public static readonly string PPSE
```

See Also

Applies to: [EmvConstants](#)₁₅

PSE Field

C#

```
public static readonly string PSE
```

See Also

Applies to: [EmvConstants](#)₁₅

PdolTags Field

C#

```
new public static Dictionary<string, string> PdolTags
```

See Also

Applies to: [EmvConstants](#)₁₅

SELECT_APDU_HEADER Field

C#

```
public static readonly byte[] SELECT_APDU_HEADER
```

See Also

Applies to: [EmvConstants](#)₁₅

SW_SELECT_OK Field

C#

```
public static readonly byte[] SW_SELECT_OK
```

See Also

Applies to: [EmvConstants](#)₁₅

tags Field

C#

```
new public static Dictionary<string, string> tags
```

See Also

Applies to: [EmvConstants](#)₁₅

ApplicationClass Field

C#

```
public const byte ApplicationClass = 64
```

See Also

Applies to: [EmvConstants](#)₁₅

ConstructedDataObject Field

C#

```
public const byte ConstructedDataObject = 32
```

See Also

Applies to: [EmvConstants](#)₁₅

ContextSpecificClass Field

C#

```
public const byte ContextSpecificClass = 128
```

See Also

Applies to: [EmvConstants](#)₁₅

PrimitiveDataObject Field

C#

```
public const byte PrimitiveDataObject = 31
```

See Also

Applies to: [EmvConstants₁₅](#)

PrivateClass Field

C#

```
public const byte PrivateClass = 192
```

See Also

Applies to: [EmvConstants₁₅](#)

SeeSubsequentBytes Field

C#

```
public const byte SeeSubsequentBytes = 31
```

See Also

Applies to: [EmvConstants₁₅](#)

UniversalClass Field

C#

```
public const byte UniversalClass = 31
```

See Also

Applies to: [EmvConstants₁₅](#)

OfflineAuth Class

C#

```
public class OfflineAuth
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Constructors

[OfflineAuth](#)₂₂

Properties

[AuthType](#)₂₂

Methods

[DecryptRsa](#)₂₃, [GetSha1](#)₂₃, [doCdaAuth](#)₂₄, [doDdaAuth](#)₂₄, [doSdaAuth](#)₂₄

OfflineAuth Constructor

C#

```
public OfflineAuth(  
    SmartApplication app  
)
```

Parameters

app

See Also

Applies to: [OfflineAuth](#)₂₁

OfflineAuth.AuthType Property

C#

```
public EmvOfflineAuthType AuthType {get;}
```

See Also

Applies to: [OfflineAuth](#)₂₁

OfflineAuth.DecryptRsa (String, String, String) Method

C#

```
public string DecryptRsa(  
    string data,  
    string exponent,  
    string key  
)
```

Parameters

data

exponent

key

See Also

Applies to: [OfflineAuth₂₁](#)

OfflineAuth.DecryptRsa (String, String) Method**C#**

```
public string DecryptRsa(  
    string data,  
    string exponent  
)
```

Parameters

data

exponent

See Also

Applies to: [OfflineAuth₂₁](#)

OfflineAuth.GetSha1 Method**C#**

```
public static string GetSha1(  
    string input  
)
```

Parameters

input

See Also

Applies to: [OfflineAuth₂₁](#)

OfflineAuth.doCdaAuth Method

C#

```
public void doCdaAuth()
```

See Also

Applies to: [OfflineAuth](#)₂₁

OfflineAuth.doDdaAuth Method

C#

```
public void doDdaAuth()
```

See Also

Applies to: [OfflineAuth](#)₂₁

OfflineAuth.doSdaAuth Method

C#

```
public void doSdaAuth()
```

See Also

Applies to: [OfflineAuth](#)₂₁

SCardReaderExtensions Class

C#

```
public static class SCardReaderExtensions
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Methods

[TransmitWithLog](#)₂₄

SCardReaderExtensions.TransmitWithLog Method

C#

```
public static Response TransmitWithLog(  
    this IsoReader reader,  
    CommandApu command  
)
```

Parameters

reader

command

See Also

Applies to: [SCardReaderExtensions](#)₂₄

SmartApplication Class

C#

```
public class SmartApplication
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Constructors

[SmartApplication](#)₂₅

Properties

[AID](#)₂₆, [EmvRecords](#)₂₆, [GpoTemplateFormat](#)₂₆, [RES_GPO](#)₂₆, [RES_SELECT](#)₂₇, [TLV_GPO](#)₂₇, [TLV_SELECT](#)₂₇

Methods

[Dump](#)₂₇, [GetOfflineTagValues](#)₂₇, [GetProcessingOptions](#)₂₈, [GetTagValue](#)₂₈, [ReadRecords](#)₂₈,
[SelectApplication](#)₂₈, [SetGpo](#)₂₉

SmartApplication Constructor

C#

```
public SmartApplication(  
    byte[] selectresponse,  
    IsoReader reader  
)
```

Parameters

selectresponse

reader

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.AID Property

C#

```
public byte[] AID {get;}
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.EmvRecords Property

C#

```
public List<SmartEmvRecord> EmvRecords {get;}
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.GpoTemplateFormat Property

C#

```
public GpoTemplateFormat GpoTemplateFormat {get;}
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.RES_GPO Property

C#

```
public byte[] RES_GPO {get; set;}
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.RES_SELECT Property

C#

```
public byte[] RES_SELECT {get; set;}
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.TLV_GPO Property

C#

```
public SmartTlv TLV_GPO {get;}
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.TLV_SELECT Property

C#

```
public SmartTlv TLV_SELECT {get;}
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.Dump Method

C#

```
public StringBuilder Dump()
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.GetOfflineTagValues Method

C#

```
public string GetOfflineTagValues()
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.GetProcessingOptions Method

C#

```
public void GetProcessingOptions()
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.GetTagValue Method

C#

```
public string GetTagValue(  
    ResponceType type,  
    string tagname  
)
```

Parameters

type

tagname

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.ReadRecords Method

C#

```
public void ReadRecords()
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.SelectApplication Method

C#

```
public void SelectApplication()
```

See Also

Applies to: [SmartApplication](#)₂₅

SmartApplication.SetGpo Method

C#

```
public void SetGpo(  
    byte[] gpodata  
)
```

Parameters

gpodata

See Also

Applies to: [SmartApplication](#)₂₅

SmartCard Class

C#

```
public class SmartCard : IDisposable
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Constructors

[SmartCard](#)₃₀

Properties

[Applications](#)₃₀

Methods

[Dispose](#)₃₁, [GetAIDs](#)₃₁, [GetSingleApplication](#)₃₁

Fields

[reader](#)₃₂

SmartCard(IsoReader) Constructor

C#

```
public SmartCard(  
    IsoReader reader
```

)

Parameters

reader

See Also

Applies to: [SmartCard](#)₂₉

SmartCard(SCardContext, String) Constructor

C#

```
public SmartCard(  
    SCardContext context,  
    string readerName  
)
```

Parameters

context

readerName

See Also

Applies to: [SmartCard](#)₂₉

SmartCard(String) Constructor

C#

```
public SmartCard(  
    string readerName  
)
```

Parameters

readerName

See Also

Applies to: [SmartCard](#)₂₉

SmartCard.Applications Property

C#

```
public List<SmartApplication> Applications {get; set;}
```

See Also

Applies to: [SmartCard₂₉](#)

SmartCard.Dispose Method

C#

```
public void Dispose()
```

See Also

Applies to: [SmartCard₂₉](#)

SmartCard.GetAIDs Method

C#

```
public int GetAIDs(  
    bool ReturnOnFirst = false  
)
```

Parameters

ReturnOnFirst

See Also

Applies to: [SmartCard₂₉](#)

SmartCard.GetSingleApplication Method

C#

```
public void GetSingleApplication(  
    byte[] aid  
)
```

Parameters

aid

See Also

Applies to: [SmartCard₂₉](#)

reader Field

C#

```
public IsoReader reader
```

See Also

Applies to: [SmartCard](#)₂₉

SmartEmvRecord Class

C#

```
public class SmartEmvRecord
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Constructors

[SmartEmvRecord](#)₃₂

Properties

[IsOffline](#)₃₃, [RES_READRECORD](#)₃₃, [Record](#)₃₃, [Sfi](#)₃₃, [TLV_READRECORD](#)₃₃

SmartEmvRecord Constructor

C#

```
public SmartEmvRecord(  
    int sfi,  
    int record,  
    bool isoffline,  
    byte[] data  
)
```

Parameters

sfi

record

isoffline

data

See Also

Applies to: [SmartEmvRecord](#)₃₂

SmartEmvRecord.IsOffline Property

C#

```
public bool IsOffline {get;}
```

See Also

Applies to: [SmartEmvRecord](#)₃₂

SmartEmvRecord.RES_READRECORD Property

C#

```
public byte[] RES_READRECORD {get;}
```

See Also

Applies to: [SmartEmvRecord](#)₃₂

SmartEmvRecord.Record Property

C#

```
public int Record {get;}
```

See Also

Applies to: [SmartEmvRecord](#)₃₂

SmartEmvRecord.Sfi Property

C#

```
public int Sfi {get;}
```

See Also

Applies to: [SmartEmvRecord](#)₃₂

SmartEmvRecord.TLV_READRECORD Property

C#

```
public SmartTlv TLV_READRECORD {get;}
```

See Also

Applies to: [SmartEmvRecord](#)₃₂

SmartTag Class

C#

```
public class SmartTag
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Constructors

[SmartTag](#)₃₄

Properties

[Children](#)₃₅, [DataLen](#)₃₅, [Description](#)₃₅, [HasChildren](#)₃₅, [HasParent](#)₃₆, [IsConstructed](#)₃₆, [Parent](#)₃₆, [TagStringName](#)₃₆, [TagValue](#)₃₆, [Tagname](#)₃₇, [TlvData](#)₃₇

SmartTag Constructor

C#

```
public SmartTag(  
    List<byte> tagname,  
    int dataLen,  
    List<byte> tagValue,  
    string tagDescript,  
    SmartTag parent = null  
)
```

Parameters

tagname

dataLen

tagValue

tagDescript

parent

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.Children Property

C#

```
public List<SmartTag> Children {get; set;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.DataLen Property

C#

```
public int DataLen {get;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.Description Property

C#

```
public string Description {get;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.HasChildren Property

C#

```
public bool HasChildren {get;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.HasParent Property

C#

```
public bool HasParent {get;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.IsConstructed Property

C#

```
public bool IsConstructed {get;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.Parent Property

C#

```
public SmartTag Parent {get; set;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.TagStringName Property

C#

```
public string TagStringName {get;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.TagValue Property

C#

```
public List<byte> TagValue {get;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.Tagname Property

C#

```
public List<byte> Tagname {get;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTag.TlvData Property

C#

```
public string TlvData {get;}
```

See Also

Applies to: [SmartTag](#)₃₄

SmartTlv Class

C#

```
public class SmartTlv
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Constructors

[SmartTlv](#)₃₇

Properties

[TagList](#)₃₈, [TagTree](#)₃₈

Methods

[dump](#)₃₈

SmartTlv Constructor

C#

```
public SmartTlv(
```

```
    byte[] tlldata  
)
```

Parameters

tlldata

See Also

Applies to: [SmartTlv₃₇](#)

SmartTlv.TagList Property

C#

```
public List<SmartTag> TagList {get;}
```

See Also

Applies to: [SmartTlv₃₇](#)

SmartTlv.TagTree Property

C#

```
public List<SmartTag> TagTree {get;}
```

See Also

Applies to: [SmartTlv₃₇](#)

SmartTlv.dump Method

C#

```
public void dump(  
    ref StringBuilder dumpStr,  
    int ident = 0  
)
```

Parameters

dumpStr

ident

See Also

Applies to: [SmartTlv](#)₃₇

StringTools Class

C#

```
public class StringTools
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Methods

[ByteArrayToHexString](#)₃₉, [ByteArrayToHexString2](#)₃₉, [HexStringToByteArray](#)₄₀, [stringToHexString](#)₄₀

StringTools.ByteArrayToHexString Method

C#

```
public static string ByteArrayToHexString(  
    byte[] bytes  
)
```

Parameters

bytes

See Also

Applies to: [StringTools](#)₃₉

StringTools.ByteArrayToHexString2 Method

C#

```
public static string ByteArrayToHexString2(  
    byte[] bytes  
)
```

Parameters

bytes

See Also

Applies to: [StringTools](#)₃₉

StringTools.HexStringToByteArray Method

C#

```
public static byte[] HexStringToByteArray(  
    string hex  
)
```

Parameters

hex

See Also

Applies to: [StringTools](#)₃₉

StringTools.stringToHexString Method

C#

```
public static string stringToHexString(  
    string asciistring  
)
```

Parameters

asciistring

See Also

Applies to: [StringTools](#)₃₉

TlvTools Class

C#

```
public class TlvTools
```

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

Methods

[AflParser](#)₄₀, [parseTagLengthData](#)₄₁

TlvTools.AflParser Method

C#

```
public static AflResult AflParser(  
    byte[] afl  
)
```

Parameters

afl

See Also

Applies to: [TlvTools](#)₄₀

TlvTools.parseTagLengthData Method

```
C#  
  
public static byte[] parseTagLengthData(  
    byte[] data  
)
```

Parameters

data

See Also

Applies to: [TlvTools](#)₄₀

CertificateType Enumeration

Constant	Value	Description
CA	0	Certification authority certificate
ICC	1	Issuer certificate

Requirements

Namespace: [EmvLib](#)₇

Assembly: EmvLib (in)

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