

MBS REALbasic Dongle Plugin Documentation

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0.1 Introduction

This is the PDF version of the documentation for the REALbasic Plug-in from Monkeybread Software Germany. Plugin part: MBS REALbasic Dongle Plugin

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Chapter 2

Dongle

2.1 class Rockey4NDMBS

class Rockey4NDMBS

class, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: A class to handle calls to the Rockey4ND Dongle API.

2.1.1 Methods

Rockey(FunctionCode as integer) as integer

method from class Rockey4NDMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Calls the Rockey Dongle API.

Example:

```
dim r as RockeyMBS  
dim e as integer
```

```
r=new RockeyMBS
```

```
r.p1=& HC44C
r.p2=& HC8F8
r.p3=0
r.p4=0

e=r.Rockey(1)

if e=0 then
  MsgBox "Found dongle: "+hex(r.lp1)
else
  MsgBox "Error: "+str(e)
end if
```

Notes:

See the Rockey dongle documentation for more details.

Be aware that no endian correction is done!

Error codes from the plugin:

- 1 = memoryblock is nil
- 2 = library not present

RockeyCall(FunctionCode as integer) as integer

method from class Rockey4NDMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Same as Rockey but a different name for compatibility.

Notes: The original Rockey dongle calls the function RockeyCall.

2.1.2 Properties

Buffer as MemoryBlock

property from class Rockey4NDMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: A one KB big buffer.

Notes: (Read and Write property)

Handle as Integer

property from class Rockey4NDMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The 16bit handle value.

Notes: (Read and Write property)

LP1 as Integer

property from class Rockey4NDMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The first 32bit parameter for the rockey function.

Notes: (Read and Write property)

LP2 as Integer

property from class Rockey4NDMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The second 32bit parameter for the rockey function.

Notes: (Read and Write property)

P1 as Integer

property from class Rockey4NDMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The first 16bit parameter for the rokey function.

Notes: (Read and Write property)

P2 as Integer

property from class Rockey4NDMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The second 16bit parameter for the rokey function.

Notes: (Read and Write property)

P3 as Integer

property from class Rockey4NDMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The third 16bit parameter for the rokey function.

Notes: (Read and Write property)

P4 as Integer

property from class Rockey4NDMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey4ND), Plugin version: 8.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The forth 16bit parameter for the rokey function.

Notes: (Read and Write property)

2.2 class UnikeyMBS

class UnikeyMBS

class, Dongle, MBS REALbasic Dongle Plugin (Unikey), Plugin version: 7.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: A class to enable REALbasic to use Unikey dongles.

Notes:

Website:

<http://www.esecutech.com>

2.2.1 Methods

Unikey(FunctionCode as integer) as integer

method from class UnikeyMBS, Dongle, MBS REALbasic Dongle Plugin (Unikey), Plugin version: 7.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Calls the unikey function with the values from this object.

Notes: See the unikey documentation for what values to use.

2.2.2 Properties

Buffer as MemoryBlock

property from class UnikeyMBS, Dongle, MBS REALbasic Dongle Plugin (Unikey), Plugin version: 7.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The memoryblock to use when calling the unikey function.

Notes: (Read and Write property)

Handle as Integer

property from class UnikeyMBS, Dongle, MBS REALbasic Dongle Plugin (Unikey), Plugin version: 7.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The handle to the dongle.

Notes: (Read and Write property)

LP1 as Integer

property from class UnikeyMBS, Dongle, MBS REALbasic Dongle Plugin (Unikey), Plugin version: 7.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The parameter LP1.

Notes: (Read and Write property)

LP2 as Integer

property from class UnikeyMBS, Dongle, MBS REALbasic Dongle Plugin (Unikey), Plugin version: 7.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The parameter LP2.

Notes: (Read and Write property)

P1 as Integer

property from class UnikeyMBS, Dongle, MBS REALbasic Dongle Plugin (Unikey), Plugin version: 7.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The value for the parameter p1.

Notes: (Read and Write property)

P2 as Integer

property from class UnikeyMBS, Dongle, MBS REALbasic Dongle Plugin (Unikey), Plugin version: 7.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The value for the parameter p2.

Notes: (Read and Write property)

P3 as Integer

property from class UnikeyMBS, Dongle, MBS REALbasic Dongle Plugin (Unikey), Plugin version: 7.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The value for the parameter p3.

Notes: (Read and Write property)

P4 as Integer

property from class UnikeyMBS, Dongle, MBS REALbasic Dongle Plugin (Unikey), Plugin version: 7.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The value for the parameter p4.

Notes: (Read and Write property)

2.3 class RockeyMBS

class RockeyMBS

class, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 3.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: A class to handle calls to the Rockey Dongle API.

2.3.1 Methods

Rockey(FunctionCode as integer) as integer

method from class RockeyMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 3.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Calls the Rockey Dongle API.

Example:

```
dim r as RockeyMBS
dim e as integer

r=new RockeyMBS
r.p1=& HC44C
r.p2=& HC8F8
r.p3=0
r.p4=0

e=r.Rockey(1)

if e=0 then
  MsgBox "Found dongle: "+hex(r.lp1)
else
  MsgBox "Error: "+str(e)
end if
```

Notes:

See the Rockey dongle documentation for more details.

Be aware that no endian correction is done!

Error codes from the plugin:

-1 = memoryblock is nil

-2 = library not present (always on Linux)

RockeyCall(FunctionCode as integer) as integer

method from class RockeyMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 7.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Same as Rockey but a different name for compatibility.

Notes: The original Rockey dongle calls the function RockeyCall.

2.3.2 Properties

Buffer as memoryblock

property from class RockeyMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 3.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: A one KB big buffer.

Notes: (Read and Write property)

Handle as Integer

property from class RockeyMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 3.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The 16bit handle value.

Notes: (Read and Write property)

LP1 as Integer

property from class RockeyMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 3.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The first 32bit parameter for the rokey function.

Notes: (Read and Write property)

LP2 as Integer

property from class RockeyMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 3.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The second 32bit parameter for the rockey function.

Notes: (Read and Write property)

P1 as Integer

property from class RockeyMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 3.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The first 16bit parameter for the rockey function.

Notes: (Read and Write property)

P2 as Integer

property from class RockeyMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 3.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The second 16bit parameter for the rockey function.

Notes: (Read and Write property)

P3 as Integer

property from class RockeyMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 3.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The third 16bit parameter for the rockey function.

Notes: (Read and Write property)

P4 as Integer

property from class RockeyMBS, Dongle, MBS REALbasic Dongle Plugin (Rockey), Plugin version: 3.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The forth 16bit parameter for the rockey function.

Notes: (Read and Write property)

2.4 Globals

CallHASPMBMBS(service as integer, seed as integer, lptnum as integer, pass1 as integer, pass2 as integer, byref p1 as integer, byref p2 as integer, byref p3 as integer, byref p4 as integer)

global method, Dongle, MBS REALbasic Dongle Plugin (HASP), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Calls the HASP API.

Notes:

You may need drivers from Aladdin Knowledge Systems for your HASP keys, but the plugin should run and compile even without.

Linux added for plugin v7.0

Please check the HASP documentation from Aladdin for the list of error codes.

If you need a plugin for HASP SRM, please contact us.

CallHASPMemMBS(service as integer, seed as integer, lptnum as integer, pass1 as integer, pass2 as integer, byref p1 as integer, byref p2 as integer, byref p3 as integer, byref p4 as integer, mem as memoryblock)

global method, Dongle, MBS REALbasic Dongle Plugin (HASP), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Calls the HASP API.

Notes:

This version of the Call will pass in the p3 and p4 parameters the address of the memoryblock to the function.

Linux added for plugin v7.0

Please check the HASP documentation from Aladdin for the list of error codes.

GetHASPErrorStrMBS(error as integer) as string

global method, Dongle, MBS REALbasic Dongle Plugin (HASP), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns a human readable error string for the given error code.

Notes:

May return "" on low memory.

Please check the HASP documentation from Aladdin for the list of error codes.

GetNetHaspWarningStrMBS(error as integer) as string

global method, Dongle, MBS REALbasic Dongle Plugin (HASP), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns a human readable string for the given error code.

Notes:

May return nil on low memory.

Please check the HASP documentation from Aladdin for the list of error codes.

2.5 class HASPHLMBS

class HASPHLMBS

class, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: A class for accessing HASP HL dongles.

Notes: If you need a plugin for HASP SRM, please contact us.

2.5.1 Methods

Close

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: The destructor.

Notes:

If you logged in successful before, it logs out from a session and frees all allocated resources for the session. Lasterror is set.

Constructor(FeatureID as integer, VendorCode as string)

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Login into a feature.

Notes:

This function establishes a context (logs into a feature).

feature_ id: Unique identifier of the feature. Combinations of constants below.

vendor_ code: string with the vendor code

For local prognum features, concurrency is not handled and each login performs a decrement if it is a counting license.

Network prognum features just use the old HASPLM login logic with all drawbacks. There is only support for concurrent usage of \b one server (global server address).

Lasterror is set.

```
const HASP_PROGNUM_OPT_NO_LOCAL    =& h00008000  Disable local license search
const HASP_PROGNUM_OPT_NO_REMOTE  =& h00004000  Disable network license search
const HASP_PROGNUM_OPT_PROCESS    =& h00002000  Sets session count of network licenses to per-process
const HASP_PROGNUM_OPT_CLASSIC    =& h00001000  Enables the API to access "classic" (HASP4 or earlier) keys
const HASP_PROGNUM_OPT_TS         =& h00000800  Presence of Terminal Services gets ignored
```

DateTimeToHaspTime(day as integer, month as integer, year as integer, hour as integer, minute as integer, second as integer) as memoryblock

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Convert broken up time into a time type.

Notes:

Lasterror is set.

Times are in UTC.

DecryptMemory(Data as Memoryblock, DataOffset as integer, Size as integer)

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: This function decrypts a buffer.

Notes:

This is the reverse operation of the hasp_ encrypt() function.

Lasterror is set.

Data: Buffer

DataOffset: Start offset in the buffer.

Size: size in bytes of the buffer to be decrypted (16 bytes minimum)

If the decryption fails (e.g. key removed in-between) the data pointed to by buffer is unmodified.

DecryptString(Data as string) as string

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: This function decrypts a buffer.

Notes:

This is the reverse operation of the hasp_encrypt() function.

This function encrypts a buffer.

Lasterror is set.

If the decryption fails (e.g. key removed in-between) an empty string is returned.

EncryptMemory(Data as Memoryblock, DataOffset as integer, Size as integer)

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Encrypt a buffer.

Example:

```
dim h as HASPHLMBS // your hasp object
```

```
dim mem as MemoryBlock // your data
```

```
h.EncryptMemory(mem,0,mem.size) // Whole block
```

Notes:

This function encrypts a buffer.

Lasterror is set.

Data: Buffer

DataOffset: Start offset in the buffer.

Size: size in bytes of the buffer to be encrypted (16 bytes minimum)

If the encryption fails (e.g. key removed in-between) the data pointed to by buffer is unmodified.

EncryptString(Data as string) as string

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Encrypt a buffer.

Notes:

This function encrypts a buffer.

Lasterror is set.

If the encryption fails (e.g. key removed in-between) an empty string is returned.

GetRTC as memoryblock

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Read current time from a time key.

Notes:

This function reads the current time from a time key.

The time will be returned in seconds since Jan-01-1970 0:00:00 GMT.

The general purpose of this function is not related to licensing, but to get reliable timestamps which are independent from the system clock.

This request is only supported on locally accessed keys. Trying to get the time from a remotely accessed key will return HASP_NO_TIME.

Returns a 64bit integer inside an eight byte memoryblock.

GetSessionInfo(format as string) as string

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Get information in a session context.

Notes:

format: XML definition of the output data structure

```
const HASP.UPDATEINFO = <haspformat format="updateinfo"/>   hasp.get_sessioninfo() format to get update info (C2V)
const HASP.SESSIONINFO = <haspformat format="sessioninfo"/>   hasp.get_sessioninfo() format to get session info
const HASP.KEYINFO     = <haspformat format="keyinfo"/>       hasp.get_sessioninfo() format to get key/hardware info
```

Returns XML data with the requested information.

Calling GetSessionInfo with HASP.UPDATEINFO format will return something like this:

```
<?xml version="1.0" encoding="UTF-8"?>
<hasp_info>
<c2v>
YYIBIIADY3R2oQaABEAwulCiCYABaoEBBIIBAKOBxoABAIGBwD2sfFj8UKuDvNWH9
LhfRKDzUbLCAi6E9mN8ea7EclwOl9VeLMDuLvfsEvkor2igmwxg/wWs6HCuypEFi6
V/FkI4EUmQNmcKSIY302s9CzHP7aCrG7QKvzArVq25Nc7UxIQJ4kZJm1oWiw3zZJq
UY+G0EleETkPZ8n2uDfMauBpdWhW0R35rHIRM4wiYCZzaelpRtDX36HDh1caqfpaL
mUnwWXRz0+tLs+Dvd+kLmvcQ6jWJb4r2rxywG2IW1WTjIWBSI+h0/UgaLhG1J+9R
EQ1SrMx3YQ2bpdIK3FluZVDayW9okv7idxKJS4zGG+4UOccpKT4aWJi9cR0vdm4s/
J6fUNbhK522x/gdvR51a6ll46GpVn2HjD0ZpAgCeu6xAIwHJ7Kc6tjeRfxYX9YksE
aB9JoV/uaPTHnbu2AgQmd0r09p0zmXgD4Kuk8EtTs1GoBbY7WF3qHJsJlIz1ZeAdA
rdNOYKsOgA/q1tuLLR7O0dag
</c2v>
</hasp_info>
```

Calling GetSessionInfo with HASP.SESSIONINFO format will return something like this:

```
<hasp_info>
<feature>
<featureid>4294905856</featureid>
<maxlogins>5</maxlogins>
```

```

<currentlogins>1</currentlogins>
<activations>unlimited</activations>
</feature>
</hasp_ info>

```

In case of a expiring license on a time enabled key (prognum <= 8), instead of the remaining activations the expiration date will be returned:

```

<hasp_ info>
<feature>
<featureid>4294905857</featureid>
<expirationdate>1052919239</expirationdate>
</feature>
</hasp_ info>

```

For locally accessed keys there is no maxlogins and currentlogins field.

Calling GetSessionInfo with HASP_ KEYINFO format will return something like this for a locally accessed key:

```

<?xml version="1.0" encoding="UTF-8"?>
<hasp_ info>
<keyspec>
<keycaps>
<hasp4/>
<aes/>
<newintf/>
</keycaps>
<hasp>
<haspid>12345</haspid>
<nethasptype>0</nethasptype>
<memoryinfo>
<name>"Main"</name>
<fileid>65520</fileid>
<size>48</size>
</memoryinfo>
<memoryinfo>
<name>"FAS"</name>
<fileid>65522</fileid>
<size>80</size>
</memoryinfo>
</hasp>

```

```

<port>
<type>"USB" </type>
<address>1</address>
</port>
</keyspec>
</hasp_ info>

```

Calling GetSessionInfo with HASP_ KEYINFO format will return something like this for a remotely accessed key:

```

<?xml version="1.0" encoding="UTF-8"?>
<hasp_ info>
<keyspec>
<keycaps>
<hasp4/>
</keycaps>
<hasp>
<haspid>782062012</haspid>
<nethasptype>5</nethasptype>
<memoryinfo>
<name>"Main" </name>
<fileid>65520</fileid>
<size>432</size>
</memoryinfo>
<memoryinfo>
<name>"FAS" </name>
<fileid>65522</fileid>
<size>448</size>
</memoryinfo>
</hasp>
<serveraddress>
<protocol>"IP" </protocol>
<address>"10.20.3.10" </address>
</serveraddress>
</keyspec>
</hasp_ info>

```

keycaps flags:

hasp4	support HASP4 compatible encryption
aes	support AES encryption
rtc	key has real time clock chip
newintf	supports new access interface

GetSize(FileID as integer) as integer

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Get memory size.

Notes:

This function is used to determine the memory size.

Returns the number of bytes inside the file.

Lasterror is set.

```
const HASP_ FILEID_ MAIN      = & hfff0  File id for HASP4 compatible memory contents w/o FAS
const HASP_ FILEID_ LICENSE  = & hfff2  (Dummy) file id for license data area of memory contents
```

HaspTimeToDateTime(time as memoryblock, byref day as integer, byref month as integer, byref year as integer, byref hour as integer, byref minute as integer, byref second as integer)

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Convert time type into broken up time

Notes:

Lasterror is set.

Times are in UTC.

LegacyDecryptMemory(Data as Memoryblock, DataOffset as integer, Size as integer)

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: This function decrypts a buffer.

Notes:

This is the reverse operation of the hasp_ encrypt() function.

Lasterror is set.

Data: Buffer

DataOffset: Start offset in the buffer.

Size: size in bytes of the buffer to be decrypted (16 bytes minimum)

If the decryption fails (e.g. key removed in-between) the data pointed to by buffer is unmodified.

Legacy HASP functionality for backward compatibility.

LegacyDecryptString(Data as string) as string

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: This function decrypts a buffer.

Notes:

This is the reverse operation of the hasp_encrypt() function.

This function encrypts a buffer.

Lasterror is set.

If the decryption fails (e.g. key removed in-between) an empty string is returned.

Legacy HASP functionality for backward compatibility.

LegacyEncryptMemory(Data as Memoryblock, DataOffset as integer, Size as integer)

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Encrypt a buffer.

Example:

```
dim h as HASPHLMBS // your hasp object
```

```
dim mem as MemoryBlock // your data
```

```
h.LegacyEncryptMemory(mem,0,mem.size) // Whole block
```

Notes:

This function encrypts a buffer.
LastError is set.

Data: Buffer
DataOffset: Start offset in the buffer.
Size: size in bytes of the buffer to be encrypted (16 bytes minimum)

If the encryption fails (e.g. key removed in-between) the data pointed to by buffer is unmodified.

Legacy HASP functionality for backward compatibility.

LegacyEncryptString(Data as string) as string

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1,
console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Encrypt a buffer.

Notes:

This function encrypts a buffer.
LastError is set.

If the encryption fails (e.g. key removed in-between) an empty string is returned.

Legacy HASP functionality for backward compatibility.

LegacySetIdleTime(idletime as integer)

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1,
console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Set the LM idle time.

Notes:

idletime: the idle time in minutes

Legacy HASP functionality for backward compatibility.

LegacySetRTC(time as memoryblock)

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Write to HASP4 compatible real time clock

Notes:

This request is only supported on locally accessed keys. Trying to set the time on a remotely accessed key will return HASP_NO_TIME.

Legacy HASP functionality for backward compatibility.

ReadMemory(FileID as integer, Offset as integer, Size as integer) as Memoryblock

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: This function is used to read from the key memory.

Notes:

Lasterror is set.

Offset: Byte start in the file.

Size: Number of bytes in the file.

Result: The data read from the file.

```
const HASP_ FILEID_ MAIN      = & hfff0  File id for HASP4 compatible memory contents w/o FAS
const HASP_ FILEID_ LICENSE  = & hfff2  (Dummy) file id for license data area of memory contents
```

ReadString(FileID as integer, Offset as integer, Size as integer) as string

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: This function is used to read from the key memory.

Notes:

Lasterror is set.

Offset: Byte start in the file.

Size: Number of bytes in the file.

Result: The data read from the file.

```
const HASP_ FILEID_ MAIN      = & hfff0  File id for HASP4 compatible memory contents w/o FAS
const HASP_ FILEID_ LICENSE  = & hfff2  (Dummy) file id for license data area of memory contents
```

Update(data as string) as string

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Write an update.

Notes:

This function writes update information. The update blob contains all necessary data to perform the update: Where to write (in which "container", e.g. dongle), the necessary access data (vendor code) and of course the update itself.

If the update blob requested it, the function returns in an acknowledge blob, which is signed/encrypted by the updated instance and contains a proof that this update was successfully installed.

data: string with the complete update data.

Update via LM is not supported.

Lasterror is set.

WriteMemory(FileID as integer, FileOffset as integer, Data as Memoryblock, DataOffset as integer, Size as integer)

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Write to key memory.

Notes:

Lasterror is set.

FileOffset: Byte start in the file.

Data: The data to be written to the file.

DataOffset: The byte offset inside the memoryblock.

Size: The number of bytes to be written.

```
const HASP_ FILEID_ MAIN      = & hfff0  File id for HASP4 compatible memory contents w/o FAS
const HASP_ FILEID_ LICENSE  = & hfff2  (Dummy) file id for license data area of memory contents
```

WriteString(FileID as integer, FileOffset as integer, Data as String)

method from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Write to key memory.

Notes:

Lasterror is set.

FileOffset: Byte start in the file.

Data: The data to be written to the file.

```
const HASP_ FILEID_ MAIN      = & hfff0  File id for HASP4 compatible memory contents w/o FAS
const HASP_ FILEID_ LICENSE  = & hfff2  (Dummy) file id for license data area of memory contents
```

2.5.2 Properties

Handle as Integer

property from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: The handle of the current session.

Notes: (Read and Write property)

Lasterror as Integer

property from class HASPHLMBS, Dongle, MBS REALbasic Dongle Plugin (HASPHL), Plugin version: 6.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Last error code reported from one of the functions.

Notes:

HASP_STATUS_OK = 0	no error occurred
HASP_MEM_RANGE = 1	invalid memory address
HASP_INV_PROGNUM_OPT = 2	unknown/invalid feature id option
HASP_INSUF_MEM = 3	memory allocation failed
HASP_TMOF = 4	too many open features
HASP_ACCESS_DENIED = 5	feature access denied
HASP_INCOMPAT_FEATURE = 6	incompatible feature
HASP_CONTAINER_NOT_FOUND = 7	license container not found
HASP_TOO_SHORT = 8	en-/decryption length too short
HASP_INV_HND = 9	invalid handle
HASP_INV_FILEID = 10	invalid file id / memory descriptor
HASP_OLD_DRIVER = 11	driver or support daemon version too old
HASP_NO_TIME = 12	real time support not available
HASP_SYS_ERR = 13	generic error from host system call
HASP_NO_DRIVER = 14	hardware key driver not found
HASP_INV_FORMAT = 15	unrecognized info format
HASP_REQ_NOT_SUPP = 16	request not supported
HASP_INV_UPDATE_OBJ = 17	invalid update object
HASP_KEYID_NOT_FOUND = 18	key with requested id was not found
HASP_INV_UPDATE_DATA = 19	update data consistency check failed
HASP_INV_UPDATE_NOTSUPP = 20	update not supported by this key
HASP_INV_UPDATE_CNTR = 21	update counter mismatch
HASP_INV_VCODE = 22	invalid vendor code
HASP_ENC_NOT_SUPP = 23	requested encryption algorithm not supported
HASP_INV_TIME = 24	invalid date / time
HASP_NO_BATTERY_POWER = 25	clock has no power
HASP_NO_ACK_SPACE = 26	update requested acknowledgement, but no area to return it
HASP_TS_DETECTED = 27	terminal services (remote terminal) detected
HASP_FEATURE_TYPE_NOT_IMPL = 28	feature type not implemented
HASP_UNKNOWN_ALG = 29	unknown algorithm
HASP_INV_SIG = 30	signature check failed
HASP_FEATURE_NOT_FOUND = 31	feature not found
HASP_NO_LOG = 32	trace log is not enabled

(Read and Write property)

2.6 class Rockey2MBS

class Rockey2MBS

class, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The class to use Rockey 2 dongles in REALbasic.

2.6.1 Methods

Close

method from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Closes the dongle.

Notes:

Lasterror is set.

This is called automatically by the destructor.

Find as Int32

method from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Searches for Rockey 2 dongles on the computer.

Notes:

Lasterror is set.

Returns the number of attached Rockey 2 dongles.

GenUID(byref uid as UInt32, seed as string, isProtect as boolean)

method from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Generates an user ID.

Notes:

UID: the generated user id.

seed: Seed to generate UID. It is a character string with the maximum length of 64 bytes.

isProtect: Sets write protection. 0=dongle not write protected, 1=dongle write protected.

Lasterror is set.

Open(mode as Int32, uid as UInt32, byref hid as UInt32)

method from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Opens a specific rockey 2 dongle.

Notes:

mode:

This parameter indicates the way to open the dongle

mode = 0, open the first found ROCKEY2 dongle

mode >0, open the dongle according to the UID. The mode value is thedongle number, for example: uid=12345678, mode=2, this means it willopen the second dongle with UID 12345678

mode = -1, open the dongle according to the HID, and *hid can not be 0We defined two constants: AUTO_MODE=0 and HID_MODE=-1

uid(UserID): You need to specify the dongle UID and this UID is generated withRY2_ GenUID

hid(HardwareID): Open dongle with HID of hid. The dongle HID will be returned to hid regardless of how the dongle was opened.

Sets the handle and lasterror properties.

Read(BlockIndex as Int32) as string

method from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Read dongle content.

Notes:

BlockIndex: Block index. Specify the block to write. The value range is 0-4

Returns 512 bytes on success.

Lasterror is set.

Transform(data as string)

method from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Works.

Function: Transforms data.

Write(BlockIndex as Int32, data as string)

method from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Writes data to the dongle.

Notes:

Blockindex: Specify the block to write. The value range is 0-4.

Lasterror is set.

If you pass less than 512 bytes, the remaining space is filled with zeros.

2.6.2 Properties

Handle as Integer

property from class `Rockey2MBS`, `Dongle`, `MBS REALbasic Dongle Plugin (Rockey2)`, Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The internal handle for dongle communication.

Notes: (Read and Write property)

Lasterror as Integer

property from class `Rockey2MBS`, `Dongle`, `MBS REALbasic Dongle Plugin (Rockey2)`, Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The last error code.

Notes: (Read and Write property)

2.6.3 Constants

`AUTO_MODE = 0`

const from class `Rockey2MBS`, `Dongle`, `MBS REALbasic Dongle Plugin (Rockey2)`, Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: A constant for use in the `Open` method.

`Available = true`

const from class `Rockey2MBS`, `Dongle`, `MBS REALbasic Dongle Plugin (Rockey2)`, Plugin version: 9.6, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Whether `rockey` functions are available.

Notes: Currently plugin code is working on Linux, Windows and Mac OS X.

HID_ MODE = -1

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: A constant for use in the Open method.

R2_ MINOR = 16

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The maximum number of dongles the plugin can handle.

ROCKEY2_ DISABLE_ WRITE_ PROTECT = false

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the constants for the GenUID function.

ROCKEY2_ ENSABLE_ WRITE_ PROTECT = true

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the constants for the GenUID function.

RY2ERR_ FLUSH_ QUEUE = & hA010000F

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Internal error (Windows error)

RY2ERR_ FREE_ PREPARED_ DATA = & hA010000E

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Internal error (Windows error)

RY2ERR_ GETCAPS = & hA010000D

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Internal error (Windows error)

RY2ERR_ GET_ ATTRIBUTES = & hA010000B

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Internal error (Windows error)

RY2ERR_ GET_ PREPARED_ DATA = & hA010000C

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Internal error (Windows error)

RY2ERR_GET_SERIAL = & hA0100011

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Internal error (Windows error)

RY2ERR_NOT_OPENED_DEVICE = & hA0100002

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Need to call RY2_Open first to open the dongle, then call this function (operation error)

RY2ERR_NO_SUCH_DEVICE = & hA0100001

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Specified dongle is not found (parameter error)

RY2ERR_OPEN_DEVICE = & hA0100007

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Open device error (Windows error)

RY2ERR_READ_REPORT = & hA0100008

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Read record error(Windows error)

RY2ERR_SETUP_DI_CLASS_DEVS = & hA0100010

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Internal error (Windows error)

RY2ERR_SETUP_DI_GET_DEVICE_INTERFACE_DETAIL = & hA010000A

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Internal error (Windows error)

RY2ERR_SUCCESS = 0

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Success

RY2ERR_ TOO_ LONG_ DEVICE_ DETAIL = & hA0100012

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Internal error

RY2ERR_ TOO_ LONG_ SEED = & hA0100005

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Seed character string is longer than 64 bytes when calling GenUID (parameter error)

RY2ERR_ UNKNOWN_ DEVICE = & hA0100020

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Unknown device.

RY2ERR_ UNKNOWN_ ERROR = & hA010FFFF

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Unknown error(hardware error)

RY2ERR_ VERIFY = & hA0100014

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Verification error(hardware error)

RY2ERR_ WRITE_ PROTECT = & hA0100006

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Tried to write to write-protected dongle(operation error)

RY2ERR_ WRITE_ REPORT = & hA0100009

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Write record error(Windows error)

RY2ERR_ WRONG_ INDEX = & hA0100004

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Block index error (parameter error)

RY2ERR_ WRONG_ REPORT_ LENGTH = & hA0100013

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Wrong report length.

RY2ERR_ WRONG_ UID = & hA0100003

const from class Rockey2MBS, Dongle, MBS REALbasic Dongle Plugin (Rockey2), Plugin version: 9.6, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the error constants.

Notes: Wrong UID(parameter error)

2.7 module MatrixDongleMBS

module MatrixDongleMBS

module from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: This module implements methods to access the matrix lock dongles from Technodata Interware.

Notes:

Note: You will find the newest versions of the API and tools available for download at www.tdi-matrix.com

The plugin is from MBS. The library code it is using is based on work from tdi, so if you have trouble, ask both of us.

2.7.1 Methods

DongleCount(PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the number of dongles available at the specified LPT or USB interface.

Notes: Please check the documentation of the dongle API for more details.

DongleDecryptData(UserCode as integer, Data as memoryblock, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Transmit a 8 bytes encrypted data block to the dongle. This is returned decrypted as clear data.

Notes: Please check the documentation of the dongle API for more details.

DongleEncryptData(UserCode as integer, Data as memoryblock, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Transmit a 8 bytes clear data block to the dongle. This is returned in XTEA-encrypted form.

Notes: Please check the documentation of the dongle API for more details.

DongleExit as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Exits the dongle.

Notes: Please check the documentation of the dongle API for more details.

DongleFind as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Searches for the dongle and returns the LPT/USB interface at which it was found.

Notes: Please check the documentation of the dongle API for more details.

DongleFindEx(byref LPTNr1 as integer, byref LPTAdr1 as integer, byref DNGCnt1 as integer, byref LPTNr2 as integer, byref LPTAdr2 as integer, byref DNGCnt2 as integer, byref LPTNr3 as integer, byref LPTAdr3 as integer, byref DNGCnt3 as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Searches for all LPT ports and dongles and stores this information in a data buffer.

Notes: Please check the documentation of the dongle API for more details.

DongleGetKeyFlag(UserCode as integer, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Checks whether a 128-bit XTEA key different to zero is available in the dongle.

Notes: Please check the documentation of the dongle API for more details.

DongleMemSize(DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the memory size of the dongle in Bytes.

Notes: Please check the documentation of the dongle API for more details.

DongleModel(DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Reads the model number of the hardware from the dongle.

Notes: Please check the documentation of the dongle API for more details.

DongleReadData(UserCode as integer, Data as memoryblock, count as integer, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Reads the data from the Matrix-dongle beginning from the first memory field.

Notes: Please check the documentation of the dongle API for more details.

DongleReadDataEx(UserCode as integer, Data as memoryblock, FPos as integer, count as integer, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Reads the data from the Matrix-dongle beginning from the specified memory field.

Notes: Please check the documentation of the dongle API for more details.

DongleReadSerNr(UserCode as integer, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Reads the unique serial number which is assigned to each Matrix-dongle.

Notes: Please check the documentation of the dongle API for more details.

DongleSetLedFlag(a as integer, b as integer, c as integer, d as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Works.

Function: Sets the LED flag.

Notes: Please check the documentation of the dongle API for more details.

DongleVersion(DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Reads the version number of the dongle.

Notes: Please check the documentation of the dongle API for more details.

DongleWriteData(UserCode as integer, Data as memoryblock, count as integer, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Writes data into the Matrix-dongle beginning from the first memory field.

Notes: Please check the documentation of the dongle API for more details.

DongleWriteDataEx(UserCode as integer, Data as memoryblock, FPos as integer, count as integer, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Writes data into the Matrix-dongle beginning from the specified memory field.

Notes: Please check the documentation of the dongle API for more details.

DongleWriteKey(UserCode as integer, KeyData as memoryblock, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Saves the 128-bit XTEA key in the dongle.

Notes: Please check the documentation of the dongle API for more details.

GetConfigMatrixNet(Category as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns from Server-File parameters configured with the MxNet server program.

Notes: Please check the documentation of the dongle API for more details.

GetDriverFlag(UserCode as integer, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Reads the current USB operating mode of the dongle HID-Mode or Driver-Mode.

Notes: Please check the documentation of the dongle API for more details.

GetPortAdr(LptNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the address of the LPT port.

Notes: Please check the documentation of the dongle API for more details.

GetVersionAPI as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the version number of the Matrix-API.

Notes: Please check the documentation of the dongle API for more details.

GetVersionDRV as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the version number of the LPT driver.

Notes: Please check the documentation of the dongle API for more details.

GetVersionDRV_ USB as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the version number of the USB driver.

Notes: Please check the documentation of the dongle API for more details.

InitMatrixAPI as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Starts the Matrix API.

Notes: Please check the documentation of the dongle API for more details.

LogInMatrixNet(UserCode as integer, AppSlot as integer, DongleNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Logs on the network client and acquires/ refreshes the user slot in the server file.

Notes: Please check the documentation of the dongle API for more details.

LogOutMatrixNet(UserCode as integer, AppSlot as integer, DongleNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Logs off the network client and releases the UserSlot in the server file again.

Notes: Please check the documentation of the dongle API for more details.

PausePrinterActivity as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Stops the Windows print-spooler. (under Win9.x / Win-NT / 2000 only)

Notes: Please check the documentation of the dongle API for more details.

ReleaseMatrixAPI as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Close the Matrix API.

Notes: Please check the documentation of the dongle API for more details.

ResumePrinterActivity as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Releases the Windows print-spooler again. (under Win9.x / Win-NT / 2000 only)

Notes: Please check the documentation of the dongle API for more details.

SetConfigMatrixNet(Access as integer, File as string) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Activates or deactivates network access.

Notes: Please check the documentation of the dongle API for more details.

SetDriverFlag(UserCode as integer, DriverFlag as integer, DongleNr as integer, PortNr as integer) as integer

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Sets the dongle to the desired USB operating mode HID-Mode or Driver-Mode.

Notes: Please check the documentation of the dongle API for more details.

SetW95Access(mode as integer)

method from class MatrixDongleMBS, Dongle, MBS REALbasic Dongle Plugin (Matrix), Plugin version: 9.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Win95/98 with or without VXD driver.

Notes:

Can have the value 1 or 2 or the predefined values: IW_ DRIVER / IW_ NODRIVER

Please check the documentation of the dongle API for more details.

- 1 Communication takes place via the VXD driver.
- 2 Communication takes place without the VXD driver.

Chapter 3

Kagi

3.1 class ZKRMKeyValuePairMBS

class ZKRMKeyValuePairMBS

class, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Holds a key-value pair.

Notes:

This class is part of the "Kagi Realbasic Plugin" which is distributed by Kagi.
<http://www.kagi.com/KRMzonic/>

3.1.1 Properties

Key as String

property from class ZKRMKeyValuePairMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The key for the key-value pair.

Notes: (Read and Write property)

Value as String

property from class ZKRMKeyValuePairMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The value for the key-value pair.

Notes: (Read and Write property)

3.2 Globals

EncryptKRMStringMBS(byref data as string) as integer

global method, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Encrypt a string for the KRM.

Notes:

A string to be encrypted. The string is updated to receive the encrypted form.

String data is encrypted with the Blowfish algorithm, and the encrypted form is returned as a series of alphanumeric hex characters.

This function is part of the "Kagi Realbasic Plugin" which is distributed by Kagi:
<http://www.kagi.com/KRMzonic/>

IsKRMAvailableMBS as integer

global method, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Checks to see if the KRM can be used on this system.

Notes:

Returns kZKRMMModuleNoErr (0) or kZKRMMModuleUnavailable (10) to indicate if the module is available or not. If kZKRMMModuleUnavailable is returned, no further calls should be made to the KRM.

This function returns -1 on the platforms where KRM library is not available.

This function is part of the "Kagi Realbasic Plugin" which is distributed by Kagi.
<http://www.kagi.com/KRMzonic/>

3.3 class KRMWindowsMBS

class KRMWindowsMBS

class, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: A class to handle the Kagi Registration Module

Notes: The krm.dll is included in the plugin.

3.3.1 Methods

AddPrice(Currency as string, Price as Double, BaseCurrency as String) as boolean

method from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: AddPrice adds a price for the product in the given currency.

CloseWizard as boolean

method from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function:

You can close the Wizard at any time from your application by calling the CloseWizard function.

Notes: However, once you've received the StatusTransactionStart status code via the event it is not recom-

mended that you close the Wizard prematurely, since the Kagi Store may have already charged the user's credit card. Closing the Wizard will probably prevent you from receiving the license key.

Exec as boolean

method from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Displays the KRM Wizard.

Notes:

The user can then enter the purchase details and the purchase is processed by the Kagi server.

Returns true on success and false on failure.

ExecModal(win as window) as boolean

method from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, not console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function:

Same as Exec, but makes the KRM Wizard modal to the window with the given Handle.

Notes: See Exec for more information.

GetLastError as integer

method from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Returns an integer value which reflects the last error code of Win.

Notes: See the krmErrorXXXX constants for details.

GetResultInt(ResultID as integer, byref Value as integer) as boolean

method from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Reads an integer value.

Notes:

Constants for ResultID:

```
const krmGetStatusCode      & h0000
const krmGetTestOrder      & h0001
const krmGetTransactionKey  & h0010
const krmGetTransactionID  & h0011
const krmGetUserName       & h0012
const krmGetLicenseKey     & h0013
const krmGetOrderXML       & h0020
```

GetResultStr(ResultID as integer, byref Value as String) as Integer

method from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Reads a string value.

Notes:

Constants for ResultID:

```
const krmGetStatusCode      & h0000
const krmGetTestOrder      & h0001
const krmGetTransactionKey  & h0010
const krmGetTransactionID  & h0011
const krmGetUserName       & h0012
const krmGetLicenseKey     & h0013
const krmGetOrderXML       & h0020
```

SetDataInt(DataID as integer, Value as integer) as boolean

method from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Sets an integer value.

Notes:

Constants for DataID:

```

const krmSetUserName           & h0001
const krmSetUserCountry       & h0006
const krmSetExemptVAT         & h000A
const krmSetCurrencyCode      & h000B
const krmSetACGVar            & h000D
const krmSetOrderPassThroughData & h000E
const krmSetAffiliateTrackingData & h000F
const krmSetPurchaseOrderData & h0010
const krmSetConnectLimit      & h0020
const krmSetInitURLTimeout    & h0021
const krmSetInitDocTimeout    & h0022
const krmSetTransactionTimeout & h0023
const krmSetSupplierName      & h0100
const krmSetSupplierID        & h0101
const krmSetSupplierURL       & h0102
const krmSetSupplierEMail     & h0103
const krmSetProductDbName     & h0110
const krmSetProductPartNo     & h0111
const krmSetProductSupplierSKU & h0112
const krmSetProductName       & h0113
const krmSetProductVersion    & h0114
const krmSetTransactFailURL    & h0120
const krmSetConnectFailURL    & h0121
const krmSetLanguage          & h1001
const krmSetShowRegCode       & h1004
const krmSetShowUnlockText    & h1005
const krmSetTestOrder         & h1010
const krmSetLanguageXML       & h1011
const krmSetLanguageReceipt   & h1012
const krmSetInitializationString & h2000

```

SetDataStr(DataID as integer, Value as String) as boolean

method from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Sets a string value.

Example:

```

const theName = "Hello World"
const krmSetACGVar = & h000D

```

```

dim k as KRMWindowsMBS // your window

```

```
// an example on how to call this method:
call k.SetDataStr krmSetACGVar, "UserName="+theName
```

Notes:

Constants for DataID:

const krmSetUserName	& h0001
const krmSetUserCountry	& h0006
const krmSetExemptVAT	& h000A
const krmSetCurrencyCode	& h000B
const krmSetACGVar	& h000D
const krmSetOrderPassThroughData	& h000E
const krmSetAffiliateTrackingData	& h000F
const krmSetPurchaseOrderData	& h0010
const krmSetConnectLimit	& h0020
const krmSetInitURLTimeout	& h0021
const krmSetInitDocTimeout	& h0022
const krmSetTransactionTimeout	& h0023
const krmSetSupplierName	& h0100
const krmSetSupplierID	& h0101
const krmSetSupplierURL	& h0102
const krmSetSupplierEMail	& h0103
const krmSetProductDbName	& h0110
const krmSetProductPartNo	& h0111
const krmSetProductSupplierSKU	& h0112
const krmSetProductName	& h0113
const krmSetProductVersion	& h0114
const krmSetTransactFailURL	& h0120
const krmSetConnectFailURL	& h0121
const krmSetLanguage	& h1001
const krmSetShowRegCode	& h1004
const krmSetShowUnlockText	& h1005
const krmSetTestOrder	& h1010
const krmSetLanguageXML	& h1011
const krmSetLanguageReceipt	& h1012
const krmSetInitializationString	& h2000

3.3.2 Properties**Available as Boolean**

property from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: True if the krm.dll has been loaded correctly.

Notes: (Read and Write property)

BuildNumber as Integer

property from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: The Build Number of the DLL.

Notes: (Read and Write property)

MajorVersion as Integer

property from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: The Major Version number of the DLL.

Notes: (Read and Write property)

MinorVersion as Integer

property from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: The Minor Version number of the DLL.

Notes: (Read and Write property)

3.3.3 Events

StatusChanged(Status as integer, Value as integer, Data as string)

event from class KRMWindowsMBS, Kagi, MBS REALbasic Dongle Plugin (KRMWindows), Plugin version: 6.1, not console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: An event called whenever the status changed.

Notes:

Constants for Status Codes:

```
const krmStatusError           & h0000
const krmStatusCancel         & h0001
const krmStatusInitSuccess    & h0010
const krmStatusDownloadInitDoc & h0020
const krmStatusInitDocSuccess  & h0021
const krmStatusDisplayGUI     & h0030
const krmStatusTransactionStart & h0040
const krmStatusTransactionResult & h0041
const krmStatusTransactionID   & h0042
const krmStatusTransactionKey  & h0043
const krmStatusTestOrder      & h0044
const krmStatusUserName       & h0045
const krmStatusLicenseKey     & h0046
const krmStatusKartOrderXML   & h0047
```

Constants for Order Status Codes:

```
const krmOrderNetworkError     -2000
const krmOrderResponseError    -1000
const krmOrderInvalid          0
const krmOrderDuplicate        1000
const krmOrderFailureNoCharge  2000
const krmOrderFailureCharged   3000
const krmOrderFailureUnknownCharge 4000
const krmOrderOrderApprovalNeeded 4500
const krmOrderSuccess          5000
```

3.4 class ZKRMResultMBS

class ZKRMResultMBS

class, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: A class for results returned by the Zonic KRM.

Notes:

This class is part of the "Kagi Realbasic Plugin" which is distributed by Kagi.
<http://www.kagi.com/KRMzonic/>

3.4.1 Properties

acgRegCode as String

property from class ZKRMResultMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The registration code returned by the Kagi Automatic Code Generation system.

Notes:

If this product does not use an ACG, "" is returned.
(Read and Write property)

acgUserName as String

property from class ZKRMResultMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The user name returned by the Kagi Automatic Code Generation system.

Notes:

If this product does not use an ACG, "" is returned.
(Read and Write property)

KagiReplyXML as String

property from class ZKRMResultMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The reply XML returned by the Kagi server.

Notes: (Read and Write property)

KagiTransactionID as String

property from class ZKRMResultMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The Kagi Transaction ID for the order.

Notes: (Read and Write property)

ModuleStatus as Integer

property from class ZKRMResultMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The module result returned by the Zonic KRM.

Notes:

If this field is anything other than kZKRModuleNoErr, the remaining fields are undefined.

Useful constants:

kZKRModuleNoErr	=0	No error.
kZKRModuleUnavailable	=10	The KRM is not available on this platform.
kZKRModuleInProgress	=20	A transaction is already underway.
kZKRModuleBadResponse	=30	The data returned by the Kagi server was malformed.
kZKRModuleUserCancelled	=40	The user has cancelled the operation.
kZKRModuleUsedWebStore	=50	The user has used the Kagi web store rather than the KRM.
kZKRModuleConnectionLost	=60	The connection to the server was lost.
kZKRModuleOutOfMemory	=70	The module was unable to allocate memory.

(Read and Write property)

ModuleVersion as Integer

property from class ZKRMResultMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The module version.

Notes:

This value is set by Realbasic internally.

(Read and Write property)

OrderStatus as Integer

property from class ZKRMResultMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The order result returned by the Kagi server.

Notes:

Constants:

kZKRMOrderInvalid	=0	The transaction could not be completed because there was a protocol disagreement between Zonic KRM and the Kagi server.
kZKRMOrderDuplicate	=1000	The transaction was not processed because it was identified as a duplicate of a previous order. No charge was placed against the credit card for this transaction.
kZKRMOrderFailureNoCharge	=2000	There was a failure while processing the transaction. This status includes the possibility of the sale not being authorized. No charge was placed against the credit card for this transaction.
kZKRMOrderFailureWithCharge	=3000	There was a failure while processing the transaction. The failure was of a nature which did not prevent sale authorization, but which possibly prevents the generation of user name/registration code data. A charge will be placed against the credit card for this transaction, and any user name/registration code data will be e-mailed to the address supplied by the user.
kZKRMOrderFailureChargeStatusUnknown	=4000	There was a failure while processing the transaction. The failure was of a nature which does not make it possible to immediately determine whether or not a charge was placed against the credit card for this transaction.
kZKRMOrderHumanApprovalRequired	=4500	The order has neither been approved or denied. Before the order can be approved or denied, it is necessary for a human to review the order.
kZKRMOrderSuccess	=5000	The transaction was successful. A charge will be placed against the credit card for this transaction, and any relevant user name/registration code data has been generated and returned.

(Read and Write property)

OrderType as Integer

property from class ZKRMResultMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The type of order processed by the Kagi server.

Notes:

Some constants:

kZKRMTTypeTest	=0	The order was a test order.
kZKRMTTypeReal	=1	The order was a real order.

(Read and Write property)

3.5 class ZKRMPParametersMBS

class ZKRMPParametersMBS

class, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: A class for configuration parameters passed to the Zonic KRM.

Notes:

This class is part of the "Kagi Realbasic Plugin" which is distributed by Kagi.
<http://www.kagi.com/KRMzonic/>

3.5.1 Methods

AddKeyValuePair(item as ZKRMKeyValuePairMBS)

method from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Adds a key-value pair.

BeginModalKRM(byref result as ZKRMResultMBS) as integer

method from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Begin a modal KRM session.

Example:

```
Const kZKRMLanguageSystem = 0
Const kZKRMOptionOfferWebOrder = 1
```

```

dim r as ZKRMRResultMBS
dim p as ZKRMPParametersMBS
dim e as integer
dim s as string

StaticText2.text=""

p=new ZKRMPParametersMBS
p.AddKeyValuePair NewZKRMMKeyValuePairMBS("mykey1","myvalue1")
p.AddKeyValuePair NewZKRMMKeyValuePairMBS("mykey2","myvalue2")

s= "<krmData vendorID=""UC9"">"
s=s+ "<transactionFailureURL>http://www.mywebsite.invalid/MyTransactionFailurePage.html</transactionFailureURL>"
s=s+ "<connectionFailureURL>http://www.mywebsite.invalid/MyConnectionFailurePage.html</connectionFailureURL>"
s=s+ "<products>"
s=s+ "<product partNo="" dbName=""KART_TEST_COMPLEX_ACG_UC9"" supplierSKU=""n/a"">"
s=s+ "<displayName lang=""en"">My Product</displayName>"
s=s+ "<price currency=""AUD"" basePrice=""100.00"" baseCurrency=""USD"" />"
s=s+ "<price currency=""CAD"" basePrice=""100.00"" baseCurrency=""USD"" />"
s=s+ "<price currency=""EUR"" basePrice=""100.00"" baseCurrency=""USD"" />"
s=s+ "<price currency=""GBP"" basePrice=""100.00"" baseCurrency=""USD"" />"
s=s+ "<price currency=""JPY"" basePrice=""100.00"" baseCurrency=""USD"" />"
s=s+ "<price currency=""USD"">100.00</price>"
s=s+ "</product>"
s=s+ "</products>"
s=s+ "</krmData>"

p.ModuleVersion=0
p.ModuleLanguage=kZKRMLanguageSystem
p.ModuleOptions=kZKRMOptionOfferWebOrder
p.ModuleUserEmail=""
p.ModuleUserName=""

p.ProductInitXML=s
p.ProductStoreURL="http://order.kagi.com/?UC9"
p.ProductTFYP="Custom string to include in the TFYP email"
p.ProductPO="Custom string to use as a Purchase Order number"

e=p.BeginModalKRM(r)

if e=kZKRMMModuleNoErr then
ResultWindow.ShowResult r
end if

StaticText2.text=str(e)+" "+GetModuleStatusString(e)

```

Notes:

Runs the KRM session through a modal dialog. The application will regain control when the transaction is complete.

The results are placed in a new object which will be stored in the passed result reference. (the result can be nil)

BeginModelessKRM as integer

method from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Begin a modeless KRM session.

Example:

```
Const kZKRMLanguageSystem = 0
```

```
Const kZKRMOptionOfferWebOrder = 1
```

```
dim r as ZKRMRResultMBS
```

```
// dim p as ZKRMPParametersMBS // make your own subclass to handle event
```

```
dim e as integer
```

```
dim s as string
```

```
StaticText1.text=""
```

```
p=new MyZKRMPParametersMBS
```

```
p.AddKeyValuePair NewZKRMMKeyValuePairMBS("mykey1","myvalue1")
```

```
p.AddKeyValuePair NewZKRMMKeyValuePairMBS("mykey2","myvalue2")
```

```
s= "<krmData vendorID=""UC9"">"
```

```
s=s+ "<transactionFailureURL>http://www.mywebsite.invalid/MyTransactionFailurePage.html</transactionFailureURL>"
```

```
s=s+ "<connectionFailureURL>http://www.mywebsite.invalid/MyConnectionFailurePage.html</connectionFailureURL>"
```

```
s=s+ "<products>"
```

```
s=s+ "<product partNo="" "" dbName=""KART_TEST_COMPLEX_ACG_UC9"" supplierSKU=""n/a"">"
```

```
s=s+ "<displayName lang=""en"">My Product</displayName>"
```

```
s=s+ "<price currency=""AUD"" basePrice=""100.00"" baseCurrency=""USD""/>"
```

```
s=s+ "<price currency=""CAD"" basePrice=""100.00"" baseCurrency=""USD""/>"
```

```
s=s+ "<price currency=""EUR"" basePrice=""100.00"" baseCurrency=""USD""/>"
```

```
s=s+ "<price currency=""GBP"" basePrice=""100.00"" baseCurrency=""USD""/>"
```

```
s=s+ "<price currency=""JPY"" basePrice=""100.00"" baseCurrency=""USD""/>"
```

```
s=s+ "<price currency=""USD"">100.00</price>"
```

```
s=s+ "</product>"
```

```
s=s+ "</products>"
```

```
s=s+ "</krmData>"
```

```

p.ModuleVersion=0
p.ModuleLanguage=kZKRMLanguageSystem
p.ModuleOptions=kZKRMOptionOfferWebOrder
p.ModuleUserEmail=""
p.ModuleUserName=""

p.ProductInitXML=s
p.ProductStoreURL="http://order.kagi.com/?UC9"
p.ProductTFYP="Custom string to include in the TFYP email"
p.ProductPO="Custom string to use as a Purchase Order number"

e=p.BeginModelessKRM

StaticText1.text=str(e)+" "+GetModuleStatusString(e)

```

Notes:

Runs the KRM session through a modeless dialog. The application will regain control immediately, with a preliminary status result.

The result is given with the Complete Event being called.

If `kZKRMMModuleNoErr` is returned, a Complete Event will be dispatched to the application later.

ClearKeyValuePairs

method from class `ZKRMPParametersMBS`, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Clears the list of key-value pairs.

GetKeyValuePair(index as integer) as ZKRMKeyValuePairMBS

method from class `ZKRMPParametersMBS`, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Returns a key-value pair.

Notes:

Returns nil on any error.
Index is 0 based.

KeyValuePairCount as integer

method from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Counts all key-value pairs.

Notes: Returns 0 on any error.

Version as integer

method from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 5.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The version of this structure.

3.5.2 Properties

ModuleLanguage as Integer

property from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The language to be used by the module user interface.

Notes:

useful constants:

(Read and Write property)

kZKRMLanguageSystem	=0	The user interface will attempt to match the user's preferred language for the system. If this language is not supported by the Zonic KRM, kZKRMLanguageEnglishIntl will be used.
kZKRMLanguageEnglishUS	=10	The user interface will be displayed in US English.
kZKRMLanguageEnglishIntl	=20	The user interface will be displayed in International English.
kZKRMLanguageJapanese	=30	The user interface will be displayed in Japanese.
kZKRMLanguageGerman	=40	The user interface will be displayed in German.
kZKRMLanguageFrench	=50	The user interface will be displayed in French.
kZKRMLanguageItalian	=60	The user interface will be displayed in Italian.

ModuleOptions as Integer

property from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Options to control the module.

Notes:

Should be set to kZKRMOptionDefault if the default behaviour is required.

Useful constants:

kZKRMOptionDefault	=0	The KRM should use the default behaviour for all options.
kZKRMOptionOfferWebOrder	=1	If set, the KRM will offer the user a chance to purchase through the Kagi Web Store before presenting the normal KRM user interface. This option can be used for products that can be purchased in a manner not supported by the KRM (e.g., cash or bulk orders), and where the application has not invoked the KRM through a "Order a single copy now with a credit card" user interface element. If the KRM has been invoked through a generic "Register Now" user interface element, this option ensures that users can still reach the Web Store if required.
kZKRMOptionEncryptedProductXML	=2	If set, the productInitXML field of the ZKRMPParametersMBS structure is decrypted before use. This option can be set if the productInitXML field has been encrypted with a call to EncryptKRMString.

(Read and Write property)

ModuleUserEmail as String

property from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Optional user email address to use as the default for the purchase window.

Notes:

If this field is "", the user email address will be obtained from the system.
(Read and Write property)

ModuleUserName as String

property from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Optional user name to use as the default for the purchase window.

Notes:

If this field is "", the user name will be obtained from the system.
(Read and Write property)

ProductAffiliate as String

property from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 5.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: A product affiliate code to pass to the Kagi Transaction Server.

Notes: (Read and Write property)

ProductInitXML as String

property from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Product initialization XML.

Notes:

This string is passed to the Kagi Registration Server, which uses it to construct an appropriate order description for the KRM.
(Read and Write property)

ProductPO as String

property from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Optional product-specific purchase order number.

Notes:

This string is passed unchanged through the Kagi Registration Server, and included in both the final TFYP email and any printed receipt.

(Read and Write property)

ProductStoreURL as String

property from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Product store URL.

Notes:

If moduleOptions contains kZKRMOptionOfferWebOrder, the user will be offered the chance to bypass the KRM and visit this URL in their browser.

(Read and Write property)

ProductTFYP as String

property from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Optional product-specific "TFYP" data.

Notes:

This string is passed unchanged through the Kagi Registration Server, and included in both the final TFYP email and any printed receipt.

(Read and Write property)

3.5.3 Events

Completed(result as ZKRMRResultMBS)

event from class ZKRMPParametersMBS, Kagi, MBS REALbasic Dongle Plugin (MacKRM), Plugin version: 4.3, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The event called on a modeless KRM session.

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