

MBS REALbasic Network 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 Network Plugin

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Chapter 2

Network

2.1 class WirelessMBS

class WirelessMBS

class, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The class for Airport status and network search.

Notes:

This class is based on a private framework which Apple ships with Mac OS X.

You use it on your own risk. Apple is not supporting this.

(the plugins make still sure that it work for the current version. But we are not sure whether Apple won't change functionality in future versions)

Based on work from korben, jason and ragge:

Apple80211.h

This is the reverse engineered header for the Apple80211 private framework.

The framework can be found at `/System/Library/PrivateFrameworks/Apple80211.framework`.

Linking with `Apple80211.framework` requires `CoreFoundation.framework` and `AppKit.framework`.

Note that there is also information in the IORegistry, see
`ioreg -c AirportDriver -w 0`

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Last updated by korben on 5/15/2002

ChangeLog:

2002-05-14 ragge

Changed argument types and count to procedures
Added WirelessScan
Changed name of unknown field to beaconInterval
Added error values and error return types

2002-05-15 korben

Combined ragge's changes with jason's

2002-05-17 korben

fixed adhoc and mangaged WINetworkInfoFlags per ragge's request
Added WirelessEncrypt and WirelessKey declarations
Updated WirelessJoinWEP and WirelessMakeIBSS comments regarding keys

2.1.1 Methods

BestChannel as integer

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin
version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: BestChannel is used to get the best channel for creating an adhoc network on.

Channels as integer

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Channels is used to get valid channels for creating an adhoc network.

Notes:

the return value contains a bit field of valid channels.

For example if 0x07FF is returned then bits 0 through 10 are set, which means channels 1 through 11 are valid.

Configure

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Calls some configure method. (functionality unknown)

Notes: Lasterror is set.

Enabled as boolean

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Whether Airport communication is enabled.

Notes:

setting this value will enable or disable Airport communication.

getting this value could have returned the Enabled state of Airport, but it seems to rather return the Power state.

(Read and Write computed property)

Encrypt(inNetworkPassword as string, use104bits as boolean) as string

shared method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Encrypt is called from oinWEP and MakeIBSS to translate a string into a 40 or 104-bit Apple hashed WEP key.

Notes: Third argument is false for 40 bit key and true for 104 bit key.

GetAssociationInfo as dictionary

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Get information about the current association.

Notes:

The returned dictionary includes following entries:

keyData: Binary string buffer of the key (e.g., 32-octet PSK)

multiCipher: Integer 0 = none, 5 = CCMP?

channel: Integer

isIBSS: Boolean

authMode: Integer; 2 = WPA-Personal; 3 = open, 129 = WPA2-Enterprise

isWPA: Integer; 0 = not used, 1 = WPA, -128 == WPA2

SSID: Binary string buffer of the SSID

cipherMode: Integer; 0 = none, 4 = CCMP?

Lasterror is set.

GetCountAdhocList as integer

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Returns the number of networks in the adhoc list.

GetCountApList as integer

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Returns the number of networks in the ap list.

Example:

```
dim a as new WirelessMBS
dim info as WirelessInfoMBS=a.info

a.Scan false

MsgBox str(a.GetCountApList)+" networks found."
```

GetInfoASP as dictionary

shared method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Get ASP information dictionary.

Notes:

The returned dictionary includes following entries:

Version: version number (e.g., 3.0)

Channel: channel (e.g., 1)

Vendor: vendor (e.g., 2)

GetItemAdhocList(index as integer) as WirelessNetworkInfoMBS

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Returns the item with the given index in the adhoc list.

Notes:

Index must be in range 0 to count-1.

Returns nil on any error.

GetItemApList(index as integer) as WirelessNetworkInfoMBS

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Returns the item with the given index in the ap list.

Notes:

Index must be in range 0 to count-1.

Returns nil on any error.

HCF_ GetInfo(RIDno as integer, bufsize as integer) as string

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Get information from the Hermes chip.

Notes:

RIDno is the Hermes RID number for the data to get, as
 & hFC01 - HERMES_ RID_ CNFOWNMACADDR
 & hFC02 - HERMES_ RID_ CNFDESIRESSID
 & hFDC1 - HERMES_ RID_ CURRENTCHANNEL
 and so on.

Don't know why, but 0xF100 - HERMES_ INQ_ TALLIES works here too, and a struct with the counters will be returned. (The data returned seems to be lagging, though, call twice for fresh data.)

Info as WirelessInfoMBS

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Returns info about the state of the current wireless connection.

Example:

```
dim a as new WirelessMBS
dim info as WirelessInfoMBS=a.info
```

```
MsgBox info.name
```

Notes: Returns nil on any error.

InterfaceDict as dictionary

shared method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Returns a dictionary matching the wireless network interfaces to the drivers.

Notes:

The returned dictionary has a key,value pairs for wireless interfaces.

The key is the interface name and the value is the driver identifier, e.g., en1: com.apple.driver.AirPort.Atheros

Returns nil on any error.

IsAvailable as boolean

shared method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Returns true if a wireless interface is available, false otherwise.

Example:

```
if WirelessMBS.IsAvailable then
  MsgBox "Running"
end
```

Join(inNetworkName as string)

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Join is used to join a Wireless network.

Join8021x(SSID as string, Password as string)

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Joins a wireless network.

Notes: Lasterror is set.

JoinWEP(inNetworkName as string, inNetworkPassword as string)

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: JoinWEP is used to join an encrypted network.

Notes:

inNetworkName is the name of the network to join.

inNetworkPassword is the password/key of the network.

inNetworkPassword description:

- Passwords are just a string of any length, they will be hashed into a key.
- Keys should be passed as a hex string, optionally beginning with 0x, and must be either 10 digits for a 40bit key or 26 digits for a 104bit key, or an ascii/binary representation of the key, 5 or 13 bytes long.
- It can also be the empty string, meaning no encryption.

<http://kbase.info.apple.com/cgi-bin/WebObjects/kbase.woa/11/wa/query?searchMode=Expert& type=id& val=KC.106424>

MakeIBSS(inNetworkName as string, inNetworkPassword as string, inChannel as integer)

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: MakeIBSS is used to create a computer to computer adhoc wireless network.

Notes:

inNetworkName is the name of the network to create.

inNetworkPassword is the password/key for the new network.

inChannel is the wireless channel the network will use.

inNetworkPassword description:

- Passwords are just a string of any length, they will be hashed into a key.
- Keys should be passed as a hex string, optionally beginning with 0x, and must be either 10 digits for a 40bit key or 26 digits for a 104bit key.
- It can also be the empty string, meaning no encryption.

For more info see:

<http://kbase.info.apple.com/cgi-bin/WebObjects/kbase.woa/11/wa/query?searchMode=Expert& type=id& val=KC.106424>

Power as boolean

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Whether Airport is turned on or off.

Notes:

True if on.

(Read and Write computed property)

Scan(stripDups as boolean)

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Scans for available wireless networks.

Example:

```
dim a as new WirelessMBS
```

```
dim info as WirelessInfoMBS=a.info
```

```
a.Scan false
```

```
MsgBox str(a.GetCountApList)+" networks found."
```

Notes:

It will create two lists of networks. The arrays hold WirelessNetworkInfoMBS objects.

Note: An adhoc network created on the computer the scan is running on will not be found. Info can be used to find info about a local adhoc network.

If stripDups is true, only one basestation for each SSID will be returned

ScanSplit(stripDups as boolean)

method from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Scans for available wireless networks.

Notes:

It will create two lists of managed and adhoc networks. The arrays hold WirelessNetworkInfoMBS objects.

Note: An adhoc network created on the computer the scan is running on will not be found. Info can be used to find info about a local adhoc network.

If stripDups is true, only one basestation for each SSID will be returned

2.1.2 Properties

Handle as Integer

property from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The internal handle for the Wireless Context reference.

Notes: (Read and Write property)

lasterror as Integer

property from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The last error code reported.

Notes: (Read and Write property)

2.1.3 Constants

Internal2Err = -2013261818

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

InternalErr = -2013261821

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

kWINetworkAdhocFlag = & h0002

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the flags for the network information.

kWINetworkCFPollable = & h0004

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the flags for the network information.

kWINetworkCFPollRequest = & h0008

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the flags for the network information.

kWINetworkChannelAgility = & h0080

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the flags for the network information.

kWINetworkEncryptedFlag = & h0010

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the flags for the network information.

kWINetworkManagedFlag = & h0001

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the flags for the network information.

kWINetworkPBCC = & h0040

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the flags for the network information.

kWINetworkReserved = & hFF00

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the flags for the network information.

kWINetworkShortPreamble = & h0020

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the flags for the network information.

NoIOServiceErr = -2013261822

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

NoPowerErr = -2013261813

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

OutOfMemErr = -2013261819

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

ParamErr = -2013261823

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

Unk4Err = -2013261820

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

Unk7Err = -2013261817

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

Unk8Err = -2013261816

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

Unk9Err = -2013261815

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

UnkaErr = -2013261814

const from class WirelessMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: One of the possible error values.

2.2 class WirelessInfoMBS

class WirelessInfoMBS

class, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The data structure to hold information about the current state.

2.2.1 Properties

client_mode as Integer

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The client mode: 1 = BSS, 4 = Create IBSS

Notes: (Read and Write property)

comms_qual as Integer

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Communication Quality

Notes: (Read and Write property)

link_qual as Integer

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Link quality, percent?

Notes: (Read and Write property)

macAddress as String

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: MAC address of wireless access point.

Notes: (Read and Write property)

name as String

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Name of current (or wanted?) network.

Example:

```
dim a as new WirelessMBS
dim info as WirelessInfoMBS=a.info
```

```
MsgBox info.name
```

Notes:

(currently returned with encoding set to ASCII)
(Read and Write property)

noise as Integer

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Noise level

Notes: (Read and Write property)

port_stat as Integer

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: HERMES_RID_PORTSTAT? (Uncertain about the meaning of this! 1=off? 2=connetion bad? 3=AdHoc Create? 4=BSS (Client)? 5=BSS+OutOfRange?)

Notes: (Read and Write property)

power as Integer

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Power on flag.

Notes: (Read and Write property)

signal as Integer

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Signal level

Notes: (Read and Write property)

unknown7 as Integer

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Unknown data in the info structure.

Notes: (Read and Write property)

unknown9 as Integer

property from class WirelessInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Unknown data in the info structure.

Notes:

0=bad?, 1=ok?, 2=wrong key?

(Read and Write property)

2.3 class WirelessNetworkInfoMBS

class WirelessNetworkInfoMBS

class, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The data structure to hold information about a network.

2.3.1 Properties

beaconInterval as Integer

property from class WirelessNetworkInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: beacon interval in milliseconds

Notes: (Read and Write property)

channel as Integer

property from class WirelessNetworkInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Channel for the network.

Notes: (Read and Write property)

flags as Integer

property from class WirelessNetworkInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Flags for the network.

Notes:

See `kWINetwork` constants in the `WirelessMBS` class.
(Read and Write property)

macAddress as String

property from class `WirelessNetworkInfoMBS`, `Network`, `MBS REALbasic Network Plugin (Apple80211framework)`,
Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: MAC address of the wireless access point.
Notes: (Read and Write property)

name as String

property from class `WirelessNetworkInfoMBS`, `Network`, `MBS REALbasic Network Plugin (Apple80211framework)`,
Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The name of the network.
Notes:

(currently returned with encoding set to ASCII)
(Read and Write property)

nameLen as Integer

property from class `WirelessNetworkInfoMBS`, `Network`, `MBS REALbasic Network Plugin (Apple80211framework)`,
Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The length of the name.
Notes: (Read and Write property)

noise as Integer

property from class `WirelessNetworkInfoMBS`, `Network`, `MBS REALbasic Network Plugin (Apple80211framework)`,
Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Noise for the network. 0 for Adhoc.

Notes: (Read and Write property)

signal as Integer

property from class WirelessNetworkInfoMBS, Network, MBS REALbasic Network Plugin (Apple80211framework), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Signal strength of the network. 0 for Adhoc.

Notes: (Read and Write property)

2.4 class WindowsIPAddressMBS

class WindowsIPAddressMBS

class, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: An IP address.

2.4.1 Properties

IP as String

property from class WindowsIPAddressMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: The IP as a string.

Notes:

Maximum 15 bytes long.

e.g. "192.168.0.1"

(Read and Write property)

Mask as String

property from class `WindowsIPAddressMBS`, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: The mask for the IP.

Notes:

e.g. "255.255.255.0"

(Read and Write property)

2.5 class `WindowsEthernetMBS`

class `WindowsEthernetMBS`

class, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: A list of the Windows Ethernet Interfaces.

Notes:

Requires Windows 98 or 2000 or newer.

Reports count=0 on Windows 95 and NT 4.0.

Only activate adapters are listed.

2.5.1 Methods

Item(index as integer) as `WindowsEthernetAdapterMBS`

method from class `WindowsEthernetMBS`, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Returns the Ethernet Adapter object for the given index.

Notes: Index goes from 0 to count-1.

Update

method from class WindowsEthernetMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Updates the list.

Notes: Calls the Destructor and then the Constructor so the list is completely rebuilt.

2.5.2 Properties

Count as Integer

property from class WindowsEthernetMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: How much ethernet adapters are available.

Notes:

Note that there may be dummy or virtual adapters.
(Read and Write property)

2.6 class WindowsEthernetAdapterMBS

class WindowsEthernetAdapterMBS

class, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: A class for the properties of an ethernet adapter.

2.6.1 Methods

Gateway(index as integer) as WindowsIPAddressMBS

method from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Returns one of the IP address of the default gateway for this adapter.

Notes: Index goes from 0 to GatewayGount-1.

IP(index as integer) as WindowsIPAddressMBS

method from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Returns one of the IP addresses associated with this adapter.

Notes: Index goes from 0 to IPcount-1.

2.6.2 Properties

AdapterName as String

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Name of the adapter.

Notes: (Read and Write property)

Address as String

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Hardware address for the adapter.

Notes: (Read and Write property)

CurrentIpAddress as WindowsIPAddressMBS

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: The current IP from within the IP list.

Notes:

This field is currently normally nil, but in the future it may point to the current IP inside the IP list. But currently on Windows 2000 it seems to be always nil.
(Read and Write property)

Description as String

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Description for the adapter.

Notes: (Read and Write property)

DhcpEnabled as Boolean

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Specifies whether dynamic host configuration protocol (DHCP) is enabled for this adapter.

Notes: (Read and Write property)

DhcpServer as WindowsIPAddressMBS

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: IP address of the DHCP server for this adapter.

Notes: (Read and Write property)

Gatewaycount as Integer

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: How many gateway IPs are allocated for this adapter.

Notes: (Read and Write property)

HaveWins as Boolean

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Specifies whether this adapter uses Windows Internet Name Service (WINS).

Notes: (Read and Write property)

Index as Integer

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Adapter index.

Notes: (Read and Write property)

IPcount as Integer

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: How many IPs are allocated for this adapter.

Notes: (Read and Write property)

LeaseExpires as Integer

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Time when the current DHCP lease expires.

Notes: (Read and Write property)

LeaseObtained as Integer

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Time when the current DHCP lease was obtained.

Notes: (Read and Write property)

PrimaryWinsServer as WindowsIPAddressMBS

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: IP address of the primary WINS server.

Notes: (Read and Write property)

SecondaryWinsServer as WindowsIPAddressMBS

property from class WindowsEthernetAdapterMBS, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: IP address of the secondary WINS server.

Notes: (Read and Write property)

Type as Integer

property from class `WindowsEthernetAdapterMBS`, Network, MBS REALbasic Network Plugin (Ethernet), Plugin version: 3.1, console safe, Mac OS X: Does nothing, Windows: Works, Linux x86: Does nothing.

Function: Adapter type.

Notes:

The type must be of the following values:

<code>MIB_IF_TYPE_OTHER</code>	1
<code>MIB_IF_TYPE_ETHERNET</code>	6
<code>MIB_IF_TYPE_TOKENRING</code>	9
<code>MIB_IF_TYPE_FDDI</code>	15
<code>MIB_IF_TYPE_PPP</code>	23
<code>MIB_IF_TYPE_LOOPBACK</code>	24
<code>MIB_IF_TYPE_SLIP</code>	28

(Read and Write property)

2.7 class DarwinPingMBS**class DarwinPingMBS**

class, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: A class to do a ping on Mac OS X.

Notes: This class has still issues, so you may prefer to run ping in the shell class.

2.7.1 Methods**Ping(HostToPing as string, TimeOutMS as integer, TimeToLife as integer) as integer**

method from class `DarwinPingMBS`, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Starts a synchron ping.

Notes:

This method does not return until the time passed or the ping response was received.
Return value is a platform dependend error code. 0 is successful.

SimplePing(HostToPing as string, NumberOfPacketsToSend as integer, PingTimeoutInSeconds as integer, ReturnImmediatelyAfterReply as integer) as integer

method from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Starts an asynchron ping.

Notes:

This method will call the events and return when it finished.
This method can be called in a thread.
Return value is a platform dependend error code. 0 is successful.

2.7.2 Properties

HostToPing as String

property from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The value used in the Ping command.

Notes: (Read only property)

NumberOfPacketsToSend as Integer

property from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The value used in the Ping method.

Notes: (Read only property)

PingTimeoutInSeconds as Integer

property from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The ping timeout to use.

Notes:

0 for default.

(Read only property)

ReturnImmediatelyAfterReply as Integer

property from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The value used in the Ping method.

Notes: (Read only property)

TimeToLife as Integer

property from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The time to life value for the ping packets.

Notes:

a value between 0 and 255.

(Read only property)

2.7.3 Events

AddressResolved(ip as string)

event from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The IP for the domain name was resolved.

Finished(NumberPacketsSent as integer, NumberPacketsReceived as integer)

event from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The pings have finished.

NextPing(PacketSequenceNumber as integer)

event from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: We are starting the next ping now.

Response(PacketSequenceNumber as integer, ttl as integer, RoundTripTimeInMS as double)

event from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: Got a response for the given packet.

SentError(PacketSequenceNumber as integer)

event from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: A packet could not be sent.

SentSuccess(PacketSequenceNumber as integer)

event from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: The packet has sent successfull.

Timeout(PacketSequenceNumber as integer)

event from class DarwinPingMBS, Network, MBS REALbasic Network Plugin (DarwinPing), Plugin version: 4.2, not console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Does nothing.

Function: A timeout was reached for the given packet.

2.8 class DNSServiceBaseMBS

class DNSServiceBaseMBS

class, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: The base DNS Service class.

2.8.1 Methods

Available as boolean

shared method from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Whether Bonjour (zeroconfig) is installed and useable.

Notes: If this function returns true, all the needed stuff is installed and the function have been loaded.

Close

method from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Stops the current request and releases all used memory.

Notes: This is done automatically for you by the destructor.

ConstructFullName(Service as string, regtype as string, domain as string) as string

shared method from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Concatenate a three-part domain name (as returned by the above callbacks) into a properly-escaped full domain name.

Notes:

Note that events in the above functions ALREADY ESCAPE strings where necessary.

service: The service name - any dots or backslashes must NOT be escaped. May be "" (to construct a PTR record name, e.g. "_ftp._tcp.apple.com").

regtype: The service type followed by the protocol, separated by a dot (e.g. "_ftp._tcp").

domain: The domain name, e.g. "apple.com.". Literal dots or backslashes, if any, must be escaped, e.g. "1st\. Floor.apple.com."

Returns 0 on success, -1 on error.

GetDaemonVersion as integer

shared method from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Queries the version of the daemon.

Notes: Value is zero on any error.

Running as boolean

method from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: True if there is a running request.

2.8.2 Properties

Handle as Integer

property from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: The handle for this request.

Notes: (Read and Write property)

Lasterror as Integer

property from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: The last error code reported.

Notes:

0 if the function succeeded.

-1 if the function used was not available.

See the `kError` constants for possible errors.

(Read and Write property)

2.8.3 Constants

kClassIN = 1

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: The DNS class for Internet services.

kErrorAlreadyRegistered = -65547

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorBadFlags = -65543

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorBadInterfaceIndex = -65552

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorBadParam = -65540

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorBadReference = -65541

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorBadState = -65542

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorBadTime = -65559

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorDoubleNAT = -65558

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorFirewall = -65550

const from class *DNSServiceBaseMBS*, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorIncompatible = -65551

const from class *DNSServiceBaseMBS*, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorInvalid = -65549

const from class *DNSServiceBaseMBS*, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorNameConflict = -65548

const from class *DNSServiceBaseMBS*, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorNATTraversal = -65557

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorNoAuth = -65555

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorNoError = 0

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorNoMemory = -65539

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorNoSuchKey = -65556

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorNoSuchName = -65538

const from class *DNSServiceBaseMBS*, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorNoSuchRecord = -65554

const from class *DNSServiceBaseMBS*, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorNotInitialized = -65545

const from class *DNSServiceBaseMBS*, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorRefused = -65553

const from class *DNSServiceBaseMBS*, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorUnknown = -65537

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kErrorUnsupported = -65544

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the error constants.

kFlagsAdd = 2

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: A flag for domain enumeration and browse/query events.

Notes: "Default" applies only to enumeration and is only valid in conjunction with "Add". An enumeration callback with the "Add" flag NOT set indicates a "Remove", i.e. the domain is no longer valid.

kFlagsAllowRemoteQuery = & h200

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Flag for creating a record for which we will answer remote queries (queries from hosts more than one hop away; hosts not directly connected to the local link).

kFlagsBrowseDomains = & h40

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Flags for specifying domain enumeration type in DNSServiceEnumerateDomains.

Notes: BrowseDomains enumerates domains recommended for browsing, RegistrationDomains enumerates domains recommended for registration.

kFlagsDefault = 4

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: A flag for domain enumeration and browse/query events.

Notes: "Default" applies only to enumeration and is only valid in conjunction with "Add". An enumeration callback with the "Add" flag NOT set indicates a "Remove", i.e. the domain is no longer valid.

kFlagsForceMulticast = & h400

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the flags.

Notes: Flag for signifying that a query or registration should be performed exclusively via multicast DNS, even for a name in a domain (e.g. foo.apple.com.) that would normally imply unicast DNS.

kFlagsLongLivedQuery = & h100

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Flag for creating a long-lived unicast query for the QueryRecord call.

kFlagsMoreComing = 1

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the flags used for the events.

Notes: `MoreComing` indicates to a callback that at least one more result is queued and will be delivered following immediately after this one. Applications should not update their UI to display browse results when the `MoreComing` flag is set, because this would result in a great deal of ugly flickering on the screen. Applications should instead wait until `MoreComing` is not set, and then update their UI. When `MoreComing` is not set, that doesn't mean there will be no more answers EVER, just that there are no more answers immediately available right now at this instant. If more answers become available in the future they will be delivered as usual.

kFlagsNoAutoRename = 8

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: The flag for specifying renaming behavior on name conflict when registering non-shared records.

Notes: By default, name conflicts are automatically handled by renaming the service. `NoAutoRename` overrides this behavior - with this flag set, name conflicts will result in a callback. The `NoAutorename` flag is only valid if a name is explicitly specified when registering a service (i.e. the default name is not used.)

kFlagsRegistrationDomains = & h80

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Flags for specifying domain enumeration type in `DNSServiceEnumerateDomains`.

Notes: `BrowseDomains` enumerates domains recommended for browsing, `RegistrationDomains` enumerates domains recommended for registration.

kFlagsShared = & h10

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Flag for registering individual records on a connected DNSService.

Notes: Shared indicates that there may be multiple records with this name on the network (e.g. PTR records). Unique indicates that the record's name is to be unique on the network (e.g. SRV records).

kFlagsUnique = & h20

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Flag for registering individual records on a connected DNSService.

Notes: Shared indicates that there may be multiple records with this name on the network (e.g. PTR records). Unique indicates that the record's name is to be unique on the network (e.g. SRV records).

kInterfaceIndexAny = 0

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: The constant to use for interface index to target any interface.

kInterfaceIndexLocalOnly = -1

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: The constant to use for interface index to target the local interface.

kMaxDomainName = 1005

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Maximum length, in bytes, of a domain name represented as an **escaped** C-String including the final trailing dot, and the C-String terminating NULL at the end.

kMaxServiceName = 64

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Maximum length, in bytes, of a service name represented as a literal C-String, including the terminating NULL at the end.

kTypeA = 1

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Host address.

kTypeA6 = 38

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: IPv6 address (deprecates AAAA)

kTypeAAAA = 28

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Ip6 Address.

kTypeAFSDB = 18

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: AFS cell database.

kTypeANY = 255

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Wildcard match.

kTypeATMA = 34

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: ATM Address

kTypeAXFR = 252

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Transfer zone of authority.

kTypeCERT = 37

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Certification record.

kTypeCNAME = 5

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Canonical name.

kTypeDNAME = 39

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Non-terminal DNAME (for IPv6)

kTypeEID = 31

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Endpoint identifier.

kTypeGPOS = 27

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Geographical position (withdrawn).

kTypeHINFO = 13

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Host information.

kTypeISDN = 20

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: ISDN calling address.

kTypeIXFR = 251

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Incremental zone transfer.

kTypeKEY = 25

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Security key.

kTypeKX = 36

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Key Exchange

kTypeLOC = 29

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Location Information.

kTypeMAILA = 254

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Transfer mail agent records.

kTypeMAILB = 253

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Transfer mailbox records.

kTypeMB = 7

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Mailbox domain name.

kTypeMD = 3

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Mail destination.

kTypeMF = 4

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Mail forwarder.

kTypeMG = 8

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Mail group member.

kTypeMINFO = 14

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Mailbox information.

kTypeMR = 9

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Mail rename name.

kTypeMX = 15

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Mail routing information.

kTypeNAPTR = 35

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Naming Authority PoinTeR

kTypeNIMLOC = 32

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Nimrod Locator.

kTypeNS = 2

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Authoritative server.

kTypeNSAP = 22

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: NSAP address.

kTypeNSAP_PTR = 23

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Reverse NSAP lookup (deprecated).

kTypeNULL = 10

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Null resource record.

kTypeNXT = 30

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Next domain (security).

kTypeOPT = 41

const from class `DNSServiceBaseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: EDNS0 option (meta-RR)

kTypePTR = 12

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Domain name pointer.

kTypePX = 26

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: X.400 mail mapping.

kTypeRP = 17

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Responsible person.

kTypeRT = 21

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Router.

kTypeSIG = 24

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Security signature.

kTypeSINK = 40

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Kitchen sink (experimentatl)

kTypeSOA = 6

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Start of authority zone.

kTypeSRV = 33

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Server Selection.

kTypeTKKEY = 249

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Transaction key.

kTypeTSIG = 250

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Transaction signature.

kTypeTXT = 16

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: One or more text strings.

kTypeWKS = 11

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: Well known service.

kTypeX25 = 19

const from class DNSServiceBaseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: One of the DNS Service type constants.

Notes: X-25 calling address.

2.9 Globals

ClearOptionsMBS(extends s as SocketCore)

global method, Network, MBS REALbasic Network Plugin (Socket), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Clears all options.

Notes: Works only on BSD Sockets and if the socket handle value is valid.

DNSAddressToNameIPv6MBS(HostAddress as string) as string

global method, Network, MBS REALbasic Network Plugin (Network), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Works.

Function: Resolves an IP to it's name.

DNSAddressToNameMBS(HostAddress as string) as string

global method, Network, MBS REALbasic Network Plugin (Network), Plugin version: 4.2, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Resolves an IP to it's name.

Notes: Only for IPv4.

DNSNameToAddressIPv6MBS(HostName as string) as string

global method, Network, MBS REALbasic Network Plugin (Network), Plugin version: 8.4, console safe, Mac OS X: Works, Windows: Does nothing, Linux x86: Works.

Function: Resolves the IP address for this name.

Example:

```
msgBox dnsnameToAddressIPv6MBS("localhost") + endofLine + dnsnameToAddressMBS("localhost")
```

DNSNameToAddressMBS(HostName as string) as string

global method, Network, MBS REALbasic Network Plugin (Network), Plugin version: 4.2, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Resolves the IP address for this name.

Example:

```
msgBox dnsnameToAddressIPv6MBS("localhost") + endofLine + dnsnameToAddressMBS("localhost")
```

Notes: Only for IPv4.

LookupHostbyAddressMBS(HostAddress as string) as DNSLookupMBS

global method, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Queries the DNS server for information about a host IP address.

Example:

```
const address="17.254.0.91"
```

```
dim p1,p2,p3,p4 as integer
```

```
dim l as DNSLookupMBS
```

```
dim a as string
```

```
// slow and inefficient with NthField...
```

```

p1=val(NthField(Address,".",1))
p2=val(NthField(Address,".",2))
p3=val(NthField(Address,".",3))
p4=val(NthField(Address,".",4))

// add parts
// if encodeing, than no Unicode. Maybe WinANSI or MacRoman.
a=chr(p1)+chr(p2)+chr(p3)+chr(p4)

// try it...
l=LookupHostbyAddressMBS(a)

// success...
MsgBox l.Name

```

Notes:

The address must be a 4 byte IP address like the ones returned by `DNSLookupMBS.Address`. Returns nil on any error.

LookupHostbyNameMBS(HostName as string) as DNSLookupMBS

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

Function: Queries the DNS server for information about a host name.

Example:

```

dim s as DNSLookupMBS = LookupHostbyNameMBS("www.monkeybreadsoftware.de")

dim c as integer = s.AddressesCount-1
for i as integer = 0 to c
dim ss as string = s.Addresses(i)
print str(s.FormatIP(ss))
next

```

Notes:

Will fail if you pass an IP as an host. (e.g. 10.20.30.40)
Returns nil on any error.

LookupHostByNameMBS(HostName as string, AddressType as integer) as DNSLookupMBS

global method, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 10.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Queries the DNS server for information about a host name.

Example:

```
dim s as DNSLookupMBS = LookupHostByNameMBS("ipv6.google.com", DNSLookupMBS.AddressTypeIPv6)
```

```
if s<>nil then
  dim c as integer = s.AddressesCount-1
  for i as integer = 0 to c
    dim ss as string = s.Addresses(i)
    print str(s.FormatIP(ss))
  next
end if
```

```
s = LookupHostByNameMBS("www.six.heise.de", DNSLookupMBS.AddressTypeIPv6)
```

```
if s<>nil then
  dim c as integer = s.AddressesCount-1
  for i as integer = 0 to c
    dim ss as string = s.Addresses(i)
    print str(s.FormatIP(ss))
  next
end if
```

Notes:

Will fail if you pass an IP as an host. (e.g. 10.20.30.40)
Returns nil on any error.

IPv6 on Windows does not work with this method.

OptionMutliCastTTLMBS(extends s as SocketCore) as integer

global method, Network, MBS REALbasic Network Plugin (Socket), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Gets the multicast time to live value.

Notes: Works only on BSD Sockets and if the socket handle value is valid.

See also:

- 2.9 OptionMutliCastTTLMBS(extends s as SocketCore, assigns value as integer) 70

OptionMutliCastTTLMBS(extends s as SocketCore, assigns value as integer)

global method, Network, MBS REALbasic Network Plugin (Socket), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Sets the multicast time to live value.

Example:

```
dim t as new TCPSocket

// create a socket
t.Port=80
t.Address="www.apple.com"
t.Connect

// wait a second to connect
app.DoEvents 1000

// shows handle
MsgBox str(t.Handle)

// shows current value
MsgBox str(t.OptionMutliCastTTLMBS)
t.OptionMutliCastTTLMBS=10

// shows new value
MsgBox str(t.OptionMutliCastTTLMBS)
```

Notes: Works only on BSD Sockets and if the socket handle value is valid.

See also:

- 2.9 OptionMutliCastTTLMBS(extends s as SocketCore) as integer

70

OptionTOSMBS(extends s as SocketCore) as integer

global method, Network, MBS REALbasic Network Plugin (Socket), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Gets the type of service value.

Notes: Works only on BSD Sockets and if the socket handle value is valid.

See also:

- 2.9 OptionTOSMBS(extends s as SocketCore, assigns value as integer)

71

OptionTOSMBS(extends s as SocketCore, assigns value as integer)

global method, Network, MBS REALbasic Network Plugin (Socket), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Sets the type of service value.

Notes: Works only on BSD Sockets and if the socket handle value is valid.

See also:

- 2.9 OptionTOSMBS(extends s as SocketCore) as integer

71

OptionTTLMBS(extends s as SocketCore) as integer

global method, Network, MBS REALbasic Network Plugin (Socket), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Gets the time to live value.

Notes: Works only on BSD Sockets and if the socket handle value is valid.

See also:

- 2.9 OptionTTLMBS(extends s as SocketCore, assigns value as integer)

72

OptionTTLMBS(extends `s` as `SocketCore`, assigns value as integer)

global method, Network, MBS REALbasic Network Plugin (Socket), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Sets the time to live value.

Example:

```
dim t as new TCPSocket

// create a socket
t.Port=80
t.Address="www.apple.com"
t.Connect

// wait a second to connect
app.DoEvents 1000

// shows handle
MsgBox str(t.Handle)

// shows current value
MsgBox str(t.OptionTTLMBS)
t.OptionTTLMBS=10

// shows new value
MsgBox str(t.OptionTTLMBS)
```

Notes: Works only on BSD Sockets and if the socket handle value is valid.
See also:

- 2.9 OptionTTLMBS(extends `s` as `SocketCore`) as integer

71

2.10 class DNSLookupMBS

class DNSLookupMBS

class, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: A class for the result of a Lookup query.

Example:

```
dim d as DNSLookupMBS = LookupHostbyNameMBS("www.apple.com")

if d=nil then
  MsgBox "No DNS Server available?"
else
  MsgBox DNSLookupMBS.FormatIP(d.Address)
end if
```

2.10.1 Methods

Addresses(index as integer) as string

method from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the address with the given index for this host.

Example:

```
dim d as DNSLookupMBS = LookupHostbyNameMBS("www.apple.com")

if d=nil then
  MsgBox "No DNS Server available?"
else
  dim c as integer = d.AddressesCount-1
  for i as integer = 0 to c
    MsgBox d.FormatIP(d.Addresses(i))
  next
end if
```

Notes: Index from 0 to count-1.

Aliases(index as integer) as string

method from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the aliasname for the given index.

Example:

```
dim d as DNSLookupMBS = LookupHostbynameMBS("www.apple.com")

if d=nil then
  MsgBox "No DNS Server available?"
else
  dim c as integer = d.AliasCount-1
  for i as integer = 0 to c
    MsgBox d.Aliases(i)
  next
end if
```

Notes: Index is from 0 to count-1.

FormatIP(ip as string) as string

shared method from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 10.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Formats an IP from binary representation into string representation.

Example:

```
dim s as string = DNSLookupMBS.ParseIPv4("65.66.67.68")

MsgBox s // in binary representation of that IP

dim t as string = DNSLookupMBS.FormatIP(s)

MsgBox t
```

Notes:

Formats both IPv4 and IPv6 IP addresses in binary representation into human readable text.
On Windows IPv6 is only supported on Windows Vista and newer.
Returns empty string on failure.

ParseIPv4(ip as string) as string

shared method from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin
version: 10.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Parses an IP address in IPv4 format.

Example:

```
dim s as string = DNSLookupMBS.ParseIPv4("65.66.67.68")
```

```
MsgBox s // in binary representation of that IP
```

```
dim t as string = DNSLookupMBS.FormatIP(s)
```

```
MsgBox t
```

Notes:

Returns empty string on failure.
Works only for IPv4 strings.

ParseIPv6(ip as string) as string

shared method from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin
version: 10.4, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Parses an IP address in IPv6 format.

Example:

```
dim s as string = DNSLookupMBS.ParseIPv6("2001:0db8:85a3:08d3:1319:8a2e:0370:7344")
```

```
MsgBox s // in binary representation of that IP
```

```
dim t as string = DNSLookupMBS.FormatIP(s)
```

MsgBox t

Notes:

Returns empty string on failure.
Works only for IPv6 strings.

2.10.2 Properties

Address as String

property from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The primary address of the host.

Example:

```
dim d as DNSLookupMBS = LookupHostByNameMBS("www.apple.com")

if d=nil then
  MsgBox "No DNS Server available?"
else
  MsgBox DNSLookupMBS.FormatIP(d.Address)
end if
```

Notes:

On TCP/IP based system the address is 4 bytes long binary string.
(Read and Write property)

AddressesCount as Integer

property from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The number of addresses for this host.

Example:

```
dim d as DNSLookupMBS = LookupHostbyNameMBS("www.apple.com")

if d=nil then
  MsgBox "No DNS Server available?"
else
  MsgBox str(d.AddressesCount)
end if
```

Notes: (Read and Write property)

AddressType as Integer

property from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The type of the address format.

Example:

```
dim d as DNSLookupMBS = LookupHostbyNameMBS("www.apple.com")

if d=nil then
  MsgBox "No DNS Server available?"
else
  MsgBox str(d.AddressType) // shows 2 for IPv4
end if
```

Notes:

2 for IPv2

10 for IPv10

(Read and Write property)

AliasCount as Integer

property from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The number of aliases for this host.

Example:

```
dim d as DNSLookupMBS = LookupHostbyNameMBS("www.apple.com")

if d=nil then
  MsgBox "No DNS Server available?"
else
  MsgBox str(d.AliasCount)
end if
```

Notes: (Read and Write property)

Name as String

property from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 3.3, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The name of the host.

Example:

```
dim d as DNSLookupMBS = LookupHostbyNameMBS("www.apple.com")

if d=nil then
  MsgBox "No DNS Server available?"
else
  MsgBox d.Name
end if
```

Notes: (Read and Write property)

2.10.3 Constants

AddressTypeIPv4 = 2

const from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 10.4, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the address types.

Notes: An IPv4 address.

AddressTypeIPv6 = 10

const from class DNSLookupMBS, Network, MBS REALbasic Network Plugin (Lookup), Plugin version: 10.4, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the address types.

Notes: An IPv6 address.

2.11 class TXTRecordMBS

class TXTRecordMBS

class, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: The class to represent a DNS-SD TXT record.

Example:

```
dim t as new TXTRecordMBS
```

```
call t.SetValue "Hello", "World"
```

```
MsgBox t.Bytes // show complete record
```

```
MsgBox t.Value("Hello") // lookup value
```

Notes: The constructor creates an empty TXTRecord where you can add values using TXTRecordSetValue.

2.11.1 Methods

Bytes as string

method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Allows you to retrieve a copy of to the raw bytes within a TXTRecord.

Example:

```
dim t as new TXTRecordMBS
call t.SetValue "Hello", "World"
```

Notes: Returns a string with the raw bytes inside the TXTRecord which you can pass directly to DNSServiceRegisterMBS.Register() or to DNSServiceRegisterMBS.UpdateRecord().

ContainsKey(key as string) as boolean

method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Allows you to determine if a given TXT Record contains a specified key.

Example:

```
dim t as new TXTRecordMBS
call t.SetValue "Hello", "World"

if t.ContainsKey("Hello") then
  MsgBox "Hello found."
else
  MsgBox "Hello not found ->bug."
end if

if t.ContainsKey("hallo") then
  MsgBox "hallo found ->bug."
```

```

else
MsgBox "hallo not found."
end if

```

Notes:

key: An ASCII string containing the key name.

Returns true if the TXT Record contains the specified key. Otherwise, it returns false.
See also:

- 2.11.1 ContainsKey(txtRecord as string, key as string) as boolean

81

ContainsKey(txtRecord as string, key as string) as boolean

shared method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Allows you to determine if a given TXT Record contains a specified key.

Example:

```

dim t as new TXTRecordMBS

call t.SetValue "Hello", "World"

dim s as string = t.Bytes // copy record to string

// now search in that string:
if TXTRecordMBS.ContainsKey(s, "Hello") then
MsgBox "Hello found."
else
MsgBox "Hello not found ->bug."
end if

if TXTRecordMBS.ContainsKey(s, "hallo") then
MsgBox "hallo found ->bug."
else
MsgBox "hallo not found."
end if

```

Notes:

txtRecord: The txt record to search in as a string.

key: An ASCII string containing the key name.

Returns true if the TXT Record contains the specified key. Otherwise, it returns false.

See also:

- 2.11.1 ContainsKey(key as string) as boolean 80

Count as integer

method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the number of keys stored in the TXT Record.

Example:

```
dim t as new TXTRecordMBS
```

```
call t.SetValue "Hello1", "World1"
```

```
call t.SetValue "Hello2", "World2"
```

```
call t.SetValue "Hello3", "World3"
```

```
MsgBox str(t.Count)
```

See also:

- 2.11.1 Count(txtRecord as string) as integer 82

Count(txtRecord as string) as integer

shared method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Returns the number of keys stored in the TXT Record.

Example:

```

dim t as new TXTRecordMBS

call t.SetValue "Hello1", "World1"
call t.SetValue "Hello2", "World2"
call t.SetValue "Hello3", "World3"

dim s as string = t.Bytes // copy record

// now count in that record
MsgBox str(TXTRecordMBS.Count(s))

```

See also:

- 2.11.1 Count as integer

82

KeyAtIndex(index as integer) as string

method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the key with the given index from the txt record.

Example:

```

dim t as new TXTRecordMBS

call t.SetValue "Hello", "World"

MsgBox t.KeyAtIndex(0) +EndOfLine + t.ValueAtIndex(0)

```

Notes:

index: the index you want in the range from zero to GetCount()-1.

It's also possible to iterate through keys in a TXT record by simply calling KeyAtIndex() repeatedly, beginning with index zero and increasing until lasterror is set to kErrorInvalid.

See also:

- 2.11.1 KeyAtIndex(txtRecord as string, index as integer) as string

84

KeyAtIndex(txtRecord as string, index as integer) as string

shared method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Returns the key with the given index from the txt record.

Example:

```
dim t as new TXTRecordMBS
call t.SetValue "Hello", "World"
dim s as string = t.Bytes // copy record to string
// now search in that string:
MsgBox TXTRecordMBS.KeyAtIndex(s,0) +EndOfLine + TXTRecordMBS.ValueAtIndex(s,0)
```

Notes:

txtRecord: The txt record to search in as a string.

index: the index you want in the range from zero to GetCount()-1.

It's also possible to iterate through keys in a TXT record by simply calling KeyAtIndex() repeatedly, beginning with index zero and increasing until lasterror is set to kErrorInvalid.

See also:

- 2.11.1 KeyAtIndex(index as integer) as string

83

Length as integer

method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Allows you to determine the length of the raw bytes within a TXTRecord.

Example:

```
dim t as new TXTRecordMBS
call t.SetValue "Hello1", "World1"
call t.SetValue "Hello2", "World2"
```

```
call t.SetValue "Hello3", "World3"  
  
MsgBox str(t.Length) // shows 42
```

RemoveValue(key as string)

method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Removes a key from a TXTRecordRef. The "key" must be an ASCII string which exists in the TXTRecord.

Example:

```
dim t as new TXTRecordMBS  
  
call t.SetValue "Hello1", "World1"  
call t.SetValue "Hello2", "World2"  
call t.SetValue "Hello3", "World3"  
  
t.RemoveValue "Hello2"  
  
MsgBox t.Bytes
```

Notes:

key: A key name which exists in the TXTRecord.

Lasterror is kErrorNoError on success or kErrorNoSuchKey if the "key" does not exist in the TXTRecord.

SetValue(key as string, value as string) as integer

method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Adds a key (optionally with value) to a TXTRecordRef.

Example:

```
dim t as new TXTRecordMBS

call t.SetValue "Hello1", "World1"
call t.SetValue "Hello2", "World2"
call t.SetValue "Hello3", "World3"
```

Notes:

If the "key" already exists in the TXTRecord, then the current value will be replaced with the new value.

Keys may exist in four states with respect to a given TXT record:

Absent (key does not appear at all)

Present with no value ("key" appears alone)

Present with empty value ("key=" appears in TXT record)

Present with non-empty value ("key=value" appears in TXT record)

For more details refer to "Data Syntax for DNS-SD TXT Records" in
<<http://files.dns-sd.org/draft-cheshire-dnsext-dns-sd.txt>>

key: A string which only contains printable ASCII values (& h20-& h7E), excluding '=' (& h3D). Keys should be 8 characters or less.

value: Any binary value. For values that represent textual data, UTF-8 is STRONGLY recommended.

Returns kErrorNoError on success. Returns kErrorInvalid if the "key" string contains illegal characters. Returns kErrorNoMemory if adding this key would exceed the available storage.

The plugin currently does not create keys with empty value. If you need that, please email us.

Value(key as string) as string

method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Allows you to retrieve the value for a given key from a TXT Record.

Example:

```
dim t as new TXTRecordMBS

call t.SetValue "Hello", "World"
MsgBox t.Value("Hello") // lookup value
```

Notes:

key: The ASCII string containing the key name.

Returns an empty string if the key does not exist in this TXT record, or exists with no value (to differentiate between these two cases use ContainsKey()).

See also:

- 2.11.1 Value(txtRecord as string, key as string) as string

87

Value(txtRecord as string, key as string) as string

shared method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Allows you to retrieve the value for a given key from a TXT Record.

Example:

```
dim t as new TXTRecordMBS

call t.SetValue "Hello", "World"

dim s as string = t.bytes
MsgBox TXTRecordMBS.Value(s, "Hello") // lookup value
```

Notes:

txtRecord: Pointer to the received TXT Record bytes.

key: The ASCII string containing the key name.

Returns an empty string if the key does not exist in this TXT record, or exists with no value (to differentiate between these two cases use ContainsKey()).

See also:

- 2.11.1 Value(key as string) as string

86

ValueAtIndex(index as integer) as string

method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Returns the key with the given index from the txt record.

Example:

```
dim t as new TXTRecordMBS
```

```
call t.SetValue "Hello", "World"
```

```
MsgBox t.KeyAtIndex(0) +EndOfLine + t.ValueAtIndex(0)
```

Notes:

index: the index you want in the range from zero to GetCount()-1.

It's also possible to iterate through values in a TXT record by simply calling ValueAtIndex() repeatedly, beginning with index zero and increasing until lasterror is set to kErrorInvalid.

See also:

- 2.11.1 ValueAtIndex(txtRecord as string, index as integer) as string

88

ValueAtIndex(txtRecord as string, index as integer) as string

shared method from class TXTRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Returns the key with the given index from the txt record.

Example:

```
dim t as new TXTRecordMBS
```

```
call t.SetValue "Hello", "World"
```

```
dim s as string = t.Bytes // copy record to string
```

```
// now search in that string:
MsgBox TXTRecordMBS.KeyAtIndex(s,0) +EndOfLine + TXTRecordMBS.ValueAtIndex(s,0)
```

Notes:

txtRecord: The txt record to search in as a string.

index: the index you want in the range from zero to GetCount()-1.

It's also possible to iterate through values in a TXT record by simply calling GetValueAtIndex() repeatedly, beginning with index zero and increasing until lasterror is set to kErrorInvalid.

See also:

- 2.11.1 ValueAtIndex(index as integer) as string

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2.12 class DNSServiceRegisterMBS

class DNSServiceRegisterMBS

class, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 5.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: A class for Apple's implementation of ZeroConfig named Bonjour.

Notes:

This class allows you to register names on the local network using Bonjour.

This class requires Mac OS X 10.3 or Windows (with installed Bonjour support and the dnssd.dll) to work. Use DNSServiceDiscoveryBrowseMBS if you want to support Mac OS X 10.2.

common error codes:

Subclass of the DNSServiceBaseMBS class.

kDNSServiceErr_NoError	= 0
kDNSServiceErr_Unknown	= -65537 (= & hFFFE FFFF)
kDNSServiceErr_NoSuchName	= -65538
kDNSServiceErr_NoMemory	= -65539
kDNSServiceErr_BadParam	= -65540
kDNSServiceErr_BadReference	= -65541
kDNSServiceErr_BadState	= -65542
kDNSServiceErr_BadFlags	= -65543
kDNSServiceErr_Unsupported	= -65544
kDNSServiceErr_NotInitialized	= -65545
kDNSServiceErr_AlreadyRegistered	= -65547
kDNSServiceErr_NameConflict	= -65548
kDNSServiceErr_Invalid	= -65549
kDNSServiceErr_Incompatible	= -65551 (client library incompatible with daemon)
kDNSServiceErr_BadinterfaceIndex	= -65552

2.12.1 Methods

AddRecord(rrType as integer, TXTRecord as string, ttl as integer)

method from class `DNSServiceRegisterMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Add a record to a registered service.

Notes:

Lasterror is set.

The name of the record will be the same as the registered service's name. The record can later be updated or deregistered by `UpdateRecord()` or `RemoveRecord()`.

rrtype: The type of the record (e.g. `kDNSServiceType_TXT`, `kDNSServiceType_SRV`, etc)

data: The raw rdata to be contained in the added resource record.

ttl: The time to live of the resource record, in seconds. Pass 0 to use a default value.

Register(Flags as integer, interfaceIndex as integer, servicename as string, servicetype as string, domain as string, host as string, port as integer, txtRecord as string) as boolean

method from class `DNSServiceRegisterMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 5.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Register a service that is discovered via Browse() and Resolve() calls.

Notes:

Flag for specifying renaming behavior on name conflict when registering non-shared records. NoAutorename is only valid if a name is explicitly specified when registering a service (ie the default name is not used.)

```
kDNSServiceFlagsNoAutoRename    = 8,
kDNSServiceFlagsAutoRename      = 0 (i.e. bit not set)
```

You need to keep this object alive (keep a reference in a window, a module or your app class) so you can receive events.

In a perfect application you use DNSServiceDomainEnumerationMBS class to enumerate which domains you should use.

RemoveRecord

method from class DNSServiceRegisterMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Remove a record previously added to a service record set via AddTextRecord.

Notes: Lasterror is set.

UpdateRecord(TXTRecord as string, ttl as integer)

method from class DNSServiceRegisterMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Changes the TXT Record.

Notes:

data is the TXT Record composed of Pascal Strings.

ttl = time to live.

Lasterror is set.

2.12.2 Events

ServiceRegistration(flags as integer, errorcode as integer, Name as string, RegType as string, Domain as string)

event from class DNSServiceRegisterMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 5.0, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Registration was done.

Notes: Starting a new query from within this event on the same object can cause problems. Better you create a new instance for another query if you need one.

2.13 class DNSServiceDomainEnumerationMBS

class DNSServiceDomainEnumerationMBS

class, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 5.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: A class for Apple's implementation of ZeroConfig named Bonjour.

Notes:

This class allows you to enumerate domains.

This class requires Mac OS X 10.3 or Windows (with installed Bonjour support and the dnssd.dll) to work. Use DNSServiceDiscoveryBrowseMBS if you want to support Mac OS X 10.2.

common error codes:

Subclass of the DNSServiceBaseMBS class.

kDNSServiceErr_NoError	= 0
kDNSServiceErr_Unknown	= -65537 (= & hFFFF FFFF)
kDNSServiceErr_NoSuchName	= -65538
kDNSServiceErr_NoMemory	= -65539
kDNSServiceErr_BadParam	= -65540
kDNSServiceErr_BadReference	= -65541
kDNSServiceErr_BadState	= -65542
kDNSServiceErr_BadFlags	= -65543
kDNSServiceErr_Unsupported	= -65544
kDNSServiceErr_NotInitialized	= -65545
kDNSServiceErr_AlreadyRegistered	= -65547
kDNSServiceErr_NameConflict	= -65548
kDNSServiceErr_Invalid	= -65549
kDNSServiceErr_Incompatible	= -65551 (client library incompatible with daemon)
kDNSServiceErr_BadinterfaceIndex	= -65552

2.13.1 Methods

EnumerateDomains(Flags as integer, InterfaceIndex as integer) as boolean

method from class DNSServiceDomainEnumerationMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 5.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Asynchronously enumerate domains available for browsing and registration.

Notes:

Note that the names returned are (like all of DNS-SD) UTF-8 strings, and are escaped using standard DNS escaping rules.

A graphical browser displaying a hierarchical tree-structured view should cut the names at the bare dots to yield individual labels, then de-escape each label according to the escaping rules, and then display the resulting UTF-8 text.

Flags for specifying domain enumeration type in DNSServiceEnumerateDomains.

BrowseDomains enumerates domains recommended for browsing, RegistrationDomains enumerates domains recommended for registration:

kDNSServiceFlagsBrowseDomains	= 64
kDNSServiceFlagsRegistrationDomains	= 128

You need to keep this object alive (keep a reference in a window, a module or your app class) so you can receive events.

2.13.2 Events

ServiceDomainEnumeration(flags as integer, interfaceIndex as integer, errorcode as integer, Domain as string)

event from class `DNSServiceDomainEnumerationMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 5.0, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Domains changed.

Notes:

Flags uses this flags: `kFlagsAdd`, `kFlagsDefault`.

”Default” applies only to enumeration and is only valid in conjunction with ”Add”

Starting a new query from within this event on the same object can cause problems. Better you create a new instance for another query if you need one.

2.14 class `DNSServiceBrowseMBS`

class `DNSServiceBrowseMBS`

class, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 5.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: A class for Apple’s implementation of ZeroConfig named Bonjour.

Notes:

This class allows you to browse for services on the local network using Rendezvous.

This class requires Mac OS X 10.3 or Windows (with installed Bonjour support and the `dnssd.dll`) to work. Use `DNSServiceDiscoveryBrowseMBS` if you want to support Mac OS X 10.2.

common error codes:

kDNSServiceErr_NoError	= 0
kDNSServiceErr_Unknown	= -65537 (= & hFFFE FFFF)
kDNSServiceErr_NoSuchName	= -65538
kDNSServiceErr_NoMemory	= -65539
kDNSServiceErr_BadParam	= -65540
kDNSServiceErr_BadReference	= -65541
kDNSServiceErr_BadState	= -65542
kDNSServiceErr_BadFlags	= -65543
kDNSServiceErr_Unsupported	= -65544
kDNSServiceErr_NotInitialized	= -65545
kDNSServiceErr_AlreadyRegistered	= -65547
kDNSServiceErr_NameConflict	= -65548
kDNSServiceErr_Invalid	= -65549
kDNSServiceErr_Incompatible	= -65551 (client library incompatible with daemon)
kDNSServiceErr_BadinterfaceIndex	= -65552

Subclass of the DNSServiceBaseMBS class.

2.14.1 Methods

Browse(IntefaceIndex as integer, servicetype as string, domain as string) as boolean

method from class DNSServiceBrowseMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 5.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Asynchronously create a DNS Service browser to search for matching services in the local network.

Notes:

servicetype:

The type of service.

domain:

The domain in which to find the service.

Returns true if successful.

The ServiceBrowse event may be called till this browse request is closed.

You need to keep this object alive (keep a reference in a window, a module or your app class) so you can receive events.

In a perfect application you use `DNSServiceDomainEnumerationMBS` class to enumerate which domains you should use.

2.14.2 Events

ServiceBrowse(Flags as integer, InterfaceIndex as integer, ErrorCode as integer, ServiceName as string, RegType as string, Domain as string)

event from class `DNSServiceBrowseMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 5.0, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: New service found or lost one.

Notes:

Values for flags:

<code>kDNSServiceFlagsAdd</code>	= 2
<code>kDNSServiceFlagsRemove</code>	= 0 (i.e. bit not set)
<code>kDNSServiceFlagsMoreComing</code>	= 1
<code>kDNSServiceFlagsFinished</code>	= 0 (i.e. bit not set)

`MoreComing` indicates to a `Browse` callback that another result is queued. Applications should not update their UI to display browse results when the `MoreComing` flag is set, instead deferring the update until the callback's flag is `Finished`.

Starting a new query from within this event on the same object can cause problems. Better you create a new instance for another query if you need one.

2.15 class PacketSocketMBS

class PacketSocketMBS

class, Network, MBS REALbasic Network Plugin (PacketSocket), Plugin version: 8.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: An extension to the socket class for easy sending packets through the net.

Notes:

A packet is made like this:

+0: Size of data block
 +4: 4 byte code string
 +8: 4 byte for ID
 +12: variable data.

The numbers are send in low endian format so this is crossplatform.

This socket subclass can be easily made in Realbasic code itself. I did it for several of my applications, so if you like it decide between making it yourself or using this one which may even be faster, because it is written in C?

This class is only available in RB 4.0 or newer, because it crashes on RB 3.5.

As the strings are transferred as binary data you need to take care that you send text e.g. as UTF8 and restore this encoding setting on receiving.
 Subclass of the TCPSocket class.

2.15.1 Methods

SendPacket(data as string)

method from class PacketSocketMBS, Network, MBS REALbasic Network Plugin (PacketSocket), Plugin
 version: 8.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Sends a packet.

Notes: Uses ID=0 and code="" as a shortcut for the long SendPacket call.

See also:

- 2.15.1 SendPacket(data as string,code as string) 97
- 2.15.1 SendPacket(data as string,code as string,ID as integer) 98

SendPacket(data as string,code as string)

method from class PacketSocketMBS, Network, MBS REALbasic Network Plugin (PacketSocket), Plugin
 version: 8.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Sends a packet.

Notes: Uses ID=0 as a shortcut for the long SendPacket call.

See also:

- 2.15.1 SendPacket(data as string) 97
- 2.15.1 SendPacket(data as string,code as string,ID as integer) 98

SendPacket(data as string,code as string,ID as integer)

method from class PacketSocketMBS, Network, MBS REALbasic Network Plugin (PacketSocket), Plugin version: 8.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Sends a packet.

Notes:

code and ID are optional.

Code is a 4 byte string to identify the content.

(e.g. "mess" for a message or "link" for a link.)

See also:

- 2.15.1 SendPacket(data as string) 97
- 2.15.1 SendPacket(data as string,code as string) 97

2.15.2 Events

ReceivedPacket(data as string,code as string,ID as integer)

event from class PacketSocketMBS, Network, MBS REALbasic Network Plugin (PacketSocket), Plugin version: 8.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: A packet was received.

2.16 class DNSServiceResolveMBS

class DNSServiceResolveMBS

class, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 5.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: A class for Apple's implementation of ZeroConfig named Bonjour.

Notes:

This class allows you to lookup names on the local network using Bonjour.

This class requires Mac OS X 10.3 or Windows (with installed Bonjour support and the dnssd.dll) to work. Use DNSServiceDiscoveryBrowseMBS if you want to support Mac OS X 10.2.

common error codes:

kDNSServiceErr_NoError	= 0
kDNSServiceErr_Unknown	= -65537 (= &hFFFE FFFF)
kDNSServiceErr_NoSuchName	= -65538
kDNSServiceErr_NoMemory	= -65539
kDNSServiceErr_BadParam	= -65540
kDNSServiceErr_BadReference	= -65541
kDNSServiceErr_BadState	= -65542
kDNSServiceErr_BadFlags	= -65543
kDNSServiceErr_Unsupported	= -65544
kDNSServiceErr_NotInitialized	= -65545
kDNSServiceErr_AlreadyRegistered	= -65547
kDNSServiceErr_NameConflict	= -65548
kDNSServiceErr_Invalid	= -65549
kDNSServiceErr_Incompatible	= -65551 (client library incompatible with daemon)
kDNSServiceErr_BadinterfaceIndex	= -65552

Subclass of the DNSServiceBaseMBS class.

2.16.1 Methods

Resolve(InterfaceIndex as integer, servicename as string, servicetype as string, domain as string) as boolean

method from class DNSServiceResolveMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Resolves a named instance of a service to its address, port, and (optionally) a text description.
Notes:

You need to keep this object alive (keep a reference in a window, a module or your app class) so you can receive events.

If you call this method in response to a browse call, please pass the domain string you got in the ServiceBrowse event and do not replace it with something else.

2.16.2 Events

ServiceResolve(flags as integer, InterfaceIndex as integer, ErrorCode as integer, Fullname as string, Hosttarget as string, Port as integer, TxtRecord as string)

event from class DNSServiceResolveMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 10.1, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Resolve got something.

Notes: Starting a new query from within this event on the same object can cause problems. Better you create a new instance for another query if you need one.

2.17 class DNSServiceRegisterRecordMBS

class DNSServiceRegisterRecordMBS

class, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: A class for Apple's implementation of ZeroConfig named Bonjour.

Notes:

This class is to register a name record with the dns service.
Subclass of the DNSServiceBaseMBS class.

2.17.1 Methods

RegisterRecord(Flags as integer, interfaceIndex as integer, fullname as string, rrtype as integer, rrClass as integer, data as string, ttl as integer) as boolean

method from class DNSServiceRegisterRecordMBS, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Registers a record on the DNS system.

Example:

```
const kDNSServiceClass_ IN = 1
const kDNSServiceType_ SRV = 33
const kDNSServiceFlagsShared = & h10
const kDNSServiceFlagsUnique = & h20
```

Notes:

flags: Possible values are kDNSServiceFlagsShared or kDNSServiceFlagsUnique (see flag type definitions for details).

interfaceIndex: If non-zero, specifies the interface on which to register the record (the index for a given interface is determined via the if_ nametoindex() family of calls.) Passing 0 causes the record to be registered on all interfaces. See "Constants for specifying an interface index" for more details.

fullname: The full domain name of the resource record.

rrtype: The numerical type of the resource record (e.g. kDNSServiceType_ PTR, kDNSServiceType_ SRV, etc)

rrclass: The class of the resource record (usually kDNSServiceClass_ IN)

data: the raw rdata, as it is to appear in the DNS record.

ttl: The time to live of the resource record, in seconds. Pass 0 to use a default value.

Lasterror is set. kDNSServiceErr_ NoError on success (any subsequent, asynchronous errors are delivered to the event), otherwise returns an error code indicating the error that occurred (the event is never invoked)

You need to keep this object alive (keep a reference in a window, a module or your app class) so you can receive events.

UpdateRecord(TXTRecord as string, ttl as integer)

method from class `DNSServiceRegisterRecordMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 8.0, console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Changes the TXT Record.

Notes:

data is the TXT Record composed of Pascal Strings.

ttl = time to live.

Lasterror is set.

2.17.2 Events

ServiceRegistration(flags as integer, errorcode as integer)

event from class `DNSServiceRegisterRecordMBS`, Network, MBS REALbasic Network Plugin (Rendezvous), Plugin version: 8.0, not console safe, Mac OS X: Works, Windows: Works, Linux x86: Does nothing.

Function: Registration was done.

Notes: Starting a new query from within this event on the same object can cause problems. Better you create a new instance for another query if you need one.

2.18 class FTPParseMBS

class FTPParseMBS

class, Network, MBS REALbasic Network Plugin (FTPParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: A class for parsing FTP LIST responses.

Notes:

An implementation of the ftpparse code from <http://cr.yip.to/ftpparse.html>. Works only for ASCII text.

What is it?
ftpparse is a library for parsing FTP LIST responses.

ftpparse currently understands the LIST output from any UNIX server, Microsoft FTP Service, Windows NT FTP Server, VMS, WFTPD, NetPresenz, NetWare, and MSDOS. It also supports EPLF, a solution to the LIST-parsing mess.

ftpparse parses file modification times into `time_t`, so you can easily compare them and display them in your favorite format. It lets you know how precise the `time_t` is: LOCAL meaning exact with known time zone (available from EPLF), REMOTEMINUTE meaning unknown time zone and seconds, or REMOTEDAY meaning unknown time zone and time of day.

To use ftpparse, simply feed each line of LIST output to the `ftpparse()` routine, along with a pointer to a struct `ftpparse`. If `ftpparse()` returns 1, you can find a filename and various other useful information inside the struct `ftpparse`.

Commercial use of ftpparse is fine, as long as you let me know what programs you're using it in.

2.18.1 Methods

Parse(line as string) as boolean

method from class FTTParseMBS, Network, MBS REALbasic Network Plugin (FTTParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Parses a line.

Notes:

Returns true on success.

A filename is minimum required for success.

2.18.2 Properties

FlagTryCwd as Integer

property from class FTTParseMBS, Network, MBS REALbasic Network Plugin (FTTParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the Flags.

Notes:

0 if cwd is definitely pointless, 1 otherwise.
(Read and Write property)

FlagTryRetr as Integer

property from class FTTParseMBS, Network, MBS REALbasic Network Plugin (FTTParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: One of the Flags.

Notes:

0 if retr is definitely pointless, 1 otherwise.
(Read and Write property)

ID as String

property from class FTTParseMBS, Network, MBS REALbasic Network Plugin (FTTParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: Unique identifier for the file on the FTP server.

Notes: (Read only property)

IDType as Integer

property from class FTTParseMBS, Network, MBS REALbasic Network Plugin (FTTParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The type of identifier.

Notes:

Possible values:

```
const FTTPARSE_ID_UNKNOWN = 0
const FTTPARSE_ID_FULL   = 1
```

(Read and Write property)

ModificationTime as Double

property from class FTTParseMBS, Network, MBS REALbasic Network Plugin (FTTParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The time value in seconds.

Notes:

When a time zone is unknown, it is assumed to be GMT. You may want to use `localtime()` for LOCAL times, along with an indication that the time is correct in the local time zone, and `gmtime()` for REMOTE* times.

The functions `ctime()`, `gmtime()` and `localtime()` all take as an argument a time value representing the time in seconds since the Epoch (00:00:00 UTC, January 1, 1970).

Check the "man localtime" command in the Mac OS X Terminal for more details about this time stuff.
(Read and Write property)

ModificationTimeType as Integer

property from class FTTParseMBS, Network, MBS REALbasic Network Plugin (FTTParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The type of modification time.

Notes:

Possible values:

```

const FTTPARSE_MTIME_UNKNOWN    0
const FTTPARSE_MTIME_LOCAL      1  time is correct
const FTTPARSE_MTIME_REMOTEMINUTE 2  time zone and secs are unknown
const FTTPARSE_MTIME_REMOTEDAY  3  time zone and time of day are unknown

```

(Read and Write property)

Name as String

property from class FTTParseMBS, Network, MBS REALbasic Network Plugin (FTTParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The file name.

Notes: (Read only property)

Size as Integer

property from class FTTParseMBS, Network, MBS REALbasic Network Plugin (FTTParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The file size.

Notes: (Read and Write property)

SizeType as Integer

property from class FTTParseMBS, Network, MBS REALbasic Network Plugin (FTTParse), Plugin version: 4.1, console safe, Mac OS X: Works, Windows: Works, Linux x86: Works.

Function: The type of size known.

Notes:

Possible values:

```

const FTTPARSE_SIZE_UNKNOWN    0
const FTTPARSE_SIZE_BINARY     1  size is the number of octets in TYPE I
const FTTPARSE_SIZE_ASCII      2  size is the number of octets in TYPE A

```

(Read and Write property)

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