vba\_HTTP\_request:

' Wrapper class around the WinHttp Request object ("WinHttp.WinHttpRequest.5.1")

' The Request object. It carries out all functionality of Requests.

' See: https://msdn.microsoft.com/en-us/library/windows/desktop/aa383147(v=vs.85).aspx (HTTP authentication)

' See: https://github.com/VBA-tools/VBA-Web (for a good reference)

' Properties:

' Method

' URL

' Username

' Password

' ProxyUser

' ProxyPass

' Data

' Params

' Files

' Headers

' Cookies

' Proxy

' Options:

' HttpVersion

' UserAgent

' Async

' AutoAuth

' AutoAuthBypassProxy

' PassportAuth

' ClientCertificate

' ImpersonateSecureClientAuth

' VerifyServerCert

' SecureProtocols

' Secure

' IgnoreSSLErrors

' AllowRedirects

' OnlySecureRedirects

' MaxRedirects

' MaxRetries

' KeepAlive

' MaxResponseHeader

' MaxResponseBody

' StoreCookies

' StoreResponse

' EncodeURI

' EncodeCookies

' URLCharacterEncoding

' Timeout

' StrictMode

' SafeMode

' DangerMode

' BaseHeaders

' Logger

' Tracing

' Status

' StatusCode

' StatusText

' Redirected

' Sent

' Methods:

' Configure

' Prepare

' Request

' Send

' Download

' GetReq

' PostReq

' PutReq

' HeadReq

' PatchReq

' DeleteReq

' Auth

' ProxyAuth

' Header

' CookieHeader

' Headers

' FromString

' ToString

' FromDict

' ToDict

' ClearHeaders

' ClearDefaultHeaders

' Timeout

' RegisterHook

Properties are set by the user and do not have default values.

Options have default values unless they are overridden by the user. Setting these

' parameters is optional.

Property Method ' HTTP Method to use.

Property Useragent ‘UserAgent ' User agent identifier string (sent in request headers)

Property Username ' Username used for HTTP Basic Auth.

Property Password ' Password used for HTTP Basic Auth.

Property Data ‘' Dictionary or byte of request body data to attach to the Request.

' Used for POST method

Property Params ' Dictionary or byte of querystring data to attach to the Request.

Property Headers ‘' Dictionary of HTTP Headers to attach to the Request.

Property RawHeaders ‘' Outputs the headers as a string. For example:

' GET /docs/index.html HTTP/1.1

' Host: www.test101.com

' Accept: image/gif, image/jpeg, \*/\*

' Accept-Language: en-us

' Accept-Encoding: gzip, deflate

' User-Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1)

Property Cookies ‘' CookieJar to attach to Request.

' Allows the user to attach a cookiejar to a request

Property Proxy ‘' Set the proxy to use for the upcoming request.

Property Response ‘' Response instance, containing content and metadata of HTTP Response, once sent.

‘ Options

Option HttpVersion ‘' The HTTP version to be used for the request.

' HTTP protocol version (usually ‘1.1’ or ‘1.0’)

Option Async ‘' Determines whether the HTTP request should be sent sychronously or asynchronously.

Option AllowRedirects ‘' Set to True if full redirects are allowed (e.g. re-POST-ing of data at new Location)

Option MaxRedirects ‘' Maximum number of redirects allowed within a request.

Option MaxRetries ‘' The number of times a request should be retried in the event of a connection failure.

Option KeepAlive ‘' Reuse HTTP Connections through a 'Connection' header.

Option StoreCookies ‘' If StoreCookies is enabled, the request object will automatically add cookies to the jar

' Used to manage and retain cookies between requests

' If false, the received cookies as part of the HTTP response would be ignored.

Option StoreResponse ‘' Whether to store last response for later retrieval with getLastResponse().

' If set to FALSE, getLastResponse() will return NULL.

Option EncodeURI ‘' If true, URIs will automatically be percent-encoded.

' Whether to strictly adhere to RFC 3986 (in practice, this means replacing ‘+’ with ‘%20’)

' \*\*\* Need to use WinHTTP tracing in order to verify the effect of changing these settings.

Option Timeout ‘' Long integer describes the timeout of the request.

' Connection timeout (seconds)

' Likely need to split this into four properties.

SetAutoLogonPolicy

' SetAutoLogonPolicy uses Windows Authentication (formerly NTLM)

' It should be set to 'never' unless the user is planning to use Windows Authentication

' The automatic logon (auto-logon) policy determines when it is acceptable for WinHTTP to include the default credentials in a request.

' These default credentials are often the username and password used to log on to Microsoft Windows.

' The auto-logon policy was implemented to prevent these credentials from being casually used to authenticate against an untrusted server.

' The auto-logon policy only applies to the NTLM and Negotiate authentication schemes. Credentials are never automatically transmitted with other schemes.

Option StrictMode ‘' If true, Requests will do its best to follow RFCs (e.g. POST redirects).

Option SafeMode ‘' If true, Requests will catch all errors.

Option DangerMode ‘' If true, Requests will raise errors immediately.

' Status Flags

' Indicate the state of the HTTP request.

Status Redirected ‘' True if Request is part of a redirect chain (disables history and HTTPError storage).

Status Sent ‘' True if Request has been sent.

HTTP Response:

' The core Response object. All Request objects contain a response attribute, which is

' an instance of this class.

' See: <http://framework.zend.com/manual/current/en/modules/zend.http.response.html>

HTTP Headers:

' See: <http://framework.zend.com/manual/current/en/modules/zend.http.headers.html>

Old function:

Public Function UrlCharacterEncodingName( \_

ByVal lngUrlCharEncoding As Long \_

) As String

Dim objUrlCharEncodingDict As Object

Set objUrlCharEncodingDict = CreateObject("Scripting.Dictionary")

With objUrlCharEncodingDict

.Add "37", "IBM EBCDIC US-Canada"

.Add "437", "OEM United States"

.Add "500", "IBM EBCDIC International"

.Add "708", "Arabic (ASMO 708)"

.Add "709", "Arabic (ASMO-449+, BCON V4)"

.Add "710", "Arabic - Transparent Arabic"

.Add "720", "Arabic (Transparent ASMO); Arabic (DOS)"

.Add "737", "OEM Greek (formerly 437G); Greek (DOS)"

.Add "775", "OEM Baltic; Baltic (DOS)"

.Add "850", "OEM Multilingual Latin 1; Western European (DOS)"

.Add "852", "OEM Latin 2; Central European (DOS)"

.Add "855", "OEM Cyrillic (primarily Russian)"

.Add "857", "OEM Turkish; Turkish (DOS)"

.Add "858", "OEM Multilingual Latin 1 + Euro symbol"

.Add "860", "OEM Portuguese; Portuguese (DOS)"

.Add "861", "OEM Icelandic; Icelandic (DOS)"

.Add "862", "OEM Hebrew; Hebrew (DOS)"

.Add "863", "OEM French Canadian; French Canadian (DOS)"

.Add "864", "OEM Arabic; Arabic (864)"

.Add "865", "OEM Nordic; Nordic (DOS)"

.Add "866", "OEM Russian; Cyrillic (DOS)"

.Add "869", "OEM Modern Greek; Greek, Modern (DOS)"

.Add "870", "IBM EBCDIC Multilingual/ROECE (Latin 2); IBM EBCDIC Multilingual Latin 2"

.Add "874", "ANSI/OEM Thai (ISO 8859-11); Thai (Windows)"

.Add "875", "IBM EBCDIC Greek Modern"

.Add "932", "ANSI/OEM Japanese; Japanese (Shift-JIS)"

.Add "936", "ANSI/OEM Simplified Chinese (PRC, Singapore); Chinese Simplified (GB2312)"

.Add "949", "ANSI/OEM Korean (Unified Hangul Code)"

.Add "950", "ANSI/OEM Traditional Chinese (Taiwan; Hong Kong SAR, PRC); Chinese Traditional (Big5)"

.Add "1026", "IBM EBCDIC Turkish (Latin 5)"

.Add "1047", "IBM EBCDIC Latin 1/Open System"

.Add "1140", "IBM EBCDIC US-Canada (037 + Euro symbol); IBM EBCDIC (US-Canada-Euro)"

.Add "1141", "IBM EBCDIC Germany (20273 + Euro symbol); IBM EBCDIC (Germany-Euro)"

.Add "1142", "IBM EBCDIC Denmark-Norway (20277 + Euro symbol); IBM EBCDIC (Denmark-Norway-Euro)"

.Add "1143", "IBM EBCDIC Finland-Sweden (20278 + Euro symbol); IBM EBCDIC (Finland-Sweden-Euro)"

.Add "1144", "IBM EBCDIC Italy (20280 + Euro symbol); IBM EBCDIC (Italy-Euro)"

.Add "1145", "IBM EBCDIC Latin America-Spain (20284 + Euro symbol); IBM EBCDIC (Spain-Euro)"

.Add "1146", "IBM EBCDIC United Kingdom (20285 + Euro symbol); IBM EBCDIC (UK-Euro)"

.Add "1147", "IBM EBCDIC France (20297 + Euro symbol); IBM EBCDIC (France-Euro)"

.Add "1148", "IBM EBCDIC International (500 + Euro symbol); IBM EBCDIC (International-Euro)"

.Add "1149", "IBM EBCDIC Icelandic (20871 + Euro symbol); IBM EBCDIC (Icelandic-Euro)"

.Add "1200", "Unicode UTF-16, little endian byte order (BMP of ISO 10646); available only to managed applications"

.Add "1201", "Unicode UTF-16, big endian byte order; available only to managed applications"

.Add "1250", "ANSI Central European; Central European (Windows)"

.Add "1251", "ANSI Cyrillic; Cyrillic (Windows)"

.Add "1252", "ANSI Latin 1; Western European (Windows)"

.Add "1253", "ANSI Greek; Greek (Windows)"

.Add "1254", "ANSI Turkish; Turkish (Windows)"

.Add "1255", "ANSI Hebrew; Hebrew (Windows)"

.Add "1256", "ANSI Arabic; Arabic (Windows)"

.Add "1257", "ANSI Baltic; Baltic (Windows)"

.Add "1258", "ANSI/OEM Vietnamese; Vietnamese (Windows)"

.Add "1361", "Korean(Johab)"

.Add "10000", "MAC Roman; Western European (Mac)"

.Add "10001", "Japanese (Mac)"

.Add "10002", "MAC Traditional Chinese (Big5); Chinese Traditional (Mac)"

.Add "10003", "Korean (Mac)"

.Add "10004", "Arabic (Mac)"

.Add "10005", "Hebrew (Mac)"

.Add "10006", "Greek (Mac)"

.Add "10007", "Cyrillic (Mac)"

.Add "10008", "MAC Simplified Chinese (GB 2312); Chinese Simplified (Mac)"

.Add "10010", "Romanian (Mac)"

.Add "10017", "Ukrainian (Mac)"

.Add "10021", "Thai (Mac)"

.Add "10029", "MAC Latin 2; Central European (Mac)"

.Add "10079", "Icelandic (Mac)"

.Add "10081", "Turkish (Mac)"

.Add "10082", "Croatian (Mac)"

.Add "12000", "Unicode UTF-32, little endian byte order; available only to managed applications"

.Add "12001", "Unicode UTF-32, big endian byte order; available only to managed applications"

.Add "20000", "CNS Taiwan; Chinese Traditional (CNS)"

.Add "20001", "TCA Taiwan"

.Add "20002", "Eten Taiwan; Chinese Traditional (Eten)"

.Add "20003", "IBM5550 Taiwan"

.Add "20004", "TeleText Taiwan"

.Add "20005", "Wang Taiwan"

.Add "20105", "IA5 (IRV International Alphabet No. 5, 7-bit); Western European (IA5)"

.Add "20106", "IA5 German (7-bit)"

.Add "20107", "IA5 Swedish (7-bit)"

.Add "20108", "IA5 Norwegian (7-bit)"

.Add "20127", "US-ASCII (7-bit)"

.Add "20261", "T.61"

.Add "20269", "ISO 6937 Non-Spacing Accent"

.Add "20273", "IBM EBCDIC Germany"

.Add "20277", "IBM EBCDIC Denmark-Norway"

.Add "20278", "IBM EBCDIC Finland-Sweden"

.Add "20280", "IBM EBCDIC Italy"

.Add "20284", "IBM EBCDIC Latin America-Spain"

.Add "20285", "IBM EBCDIC United Kingdom"

.Add "20290", "IBM EBCDIC Japanese Katakana Extended"

.Add "20297", "IBM EBCDIC France"

.Add "20420", "IBM EBCDIC Arabic"

.Add "20423", "IBM EBCDIC Greek"

.Add "20424", "IBM EBCDIC Hebrew"

.Add "20833", "IBM EBCDIC Korean Extended"

.Add "20838", "IBM EBCDIC Thai"

.Add "20866", "Russian (KOI8-R); Cyrillic (KOI8-R)"

.Add "20871", "IBM EBCDIC Icelandic"

.Add "20880", "IBM EBCDIC Cyrillic Russian"

.Add "20905", "IBM EBCDIC Turkish"

.Add "20924", "IBM EBCDIC Latin 1/Open System (1047 + Euro symbol)"

.Add "20932", "Japanese (JIS 0208-1990 and 0212-1990)"

.Add "20936", "Simplified Chinese (GB2312); Chinese Simplified (GB2312-80)"

.Add "20949", "Korean Wansung"

.Add "21025", "IBM EBCDIC Cyrillic Serbian-Bulgarian"

.Add "21866", "Ukrainian (KOI8-U); Cyrillic (KOI8-U)"

.Add "28591", "ISO 8859-1 Latin 1; Western European (ISO)"

.Add "28592", "ISO 8859-2 Central European; Central European (ISO)"

.Add "28593", "ISO 8859-3 Latin 3"

.Add "28594", "ISO 8859-4 Baltic"

.Add "28595", "ISO 8859-5 Cyrillic"

.Add "28596", "ISO 8859-6 Arabic"

.Add "28597", "ISO 8859-7 Greek"

.Add "28598", "ISO 8859-8 Hebrew; Hebrew (ISO-Visual)"

.Add "28599", "ISO 8859-9 Turkish"

.Add "28603", "ISO 8859-13 Estonian"

.Add "28605", "ISO 8859-15 Latin 9"

.Add "29001", "Europa 3"

.Add "38598", "ISO 8859-8 Hebrew; Hebrew (ISO-Logical)"

.Add "50220", "ISO 2022 Japanese with no halfwidth Katakana; Japanese (JIS)"

.Add "50221", "ISO 2022 Japanese with halfwidth Katakana; Japanese (JIS-Allow 1 byte Kana)"

.Add "50222", "ISO 2022 Japanese JIS X 0201-1989; Japanese (JIS-Allow 1 byte Kana - SO/SI)"

.Add "50225", "ISO 2022 Korean"

.Add "50227", "ISO 2022 Simplified Chinese; Chinese Simplified (ISO 2022)"

.Add "50229", "ISO 2022 Traditional Chinese"

.Add "50930", "EBCDIC Japanese (Katakana) Extended"

.Add "50931", "EBCDIC US - Canada And Japanese"

.Add "50933", "EBCDIC Korean Extended and Korean"

.Add "50935", "EBCDIC Simplified Chinese Extended and Simplified Chinese"

.Add "50936", "EBCDIC Simplified Chinese"

.Add "50937", "EBCDIC US-Canada and Traditional Chinese"

.Add "50939", "EBCDIC Japanese (Latin) Extended and Japanese"

.Add "51932", "EUC Japanese"

.Add "51936", "EUC Simplified Chinese; Chinese Simplified (EUC)"

.Add "51949", "EUC Korean"

.Add "51950", "Traditional Chinese"

.Add "52936", "HZ-GB2312 Simplified Chinese; Chinese Simplified (HZ)"

.Add "54936", "Windows XP and later: GB18030 Simplified Chinese (4 byte); Chinese Simplified (GB18030)"

.Add "57002", "ISCII Devanagari"

.Add "57003", "ISCII Bangla"

.Add "57004", "ISCII Tamil"

.Add "57005", "ISCII Telugu"

.Add "57006", "ISCII Assamese"

.Add "57007", "ISCII Odia"

.Add "57008", "ISCII Kannada"

.Add "57009", "ISCII Malayalam"

.Add "57010", "ISCII Gujarati"

.Add "57011", "ISCII Punjabi"

.Add "65000", "Unicode (UTF-7)"

.Add "65001", "Unicode (UTF-8)"

End With

UrlCharacterEncodingName = objUrlCharEncodingDict.Item(CStr(lngUrlCharEncoding))

End Function