Setting cURL Options on the URL Adapter

> This page explains the **URL Adapter** in Bridge context. If you were looking for the same information regarding the PAS Designer, refer to URL Adapter in the Designer guide.

In the component diagram, these options can be set on the URL adapter alias. Use tagged value **options** in order to set cURL options.
If you want to specify multiple cURL options, list them separated by `','` (comma) or `' '` (blank). If an option allows for multiple values, you can concatenate them by using the `' | '` (pipe) operator.

Examples:

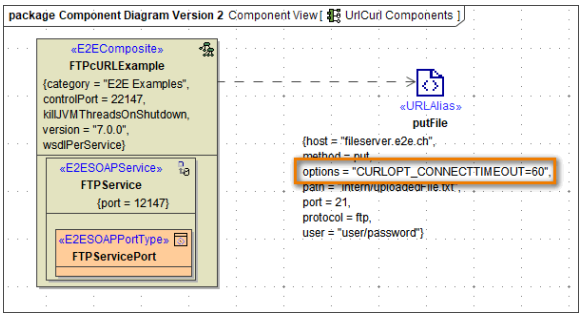
- `CURLOPT_CONNECTTIMEOUT=60` (see note below for a hint on this option)
- `CURLOPT_CONNECTTIMEOUT=60, E2E_FORBID_REUSE=true`
- `CURLOPT_CONNECTTIMEOUT=60 E2E_FORBID_REUSE=true`
- `CURLOPT_HTTPAUTH=CURLAUTH_NTLM|CURLAUTH_NEGOTIATE, E2E_FORBID_REUSE=true`

Alternatively it is possible to set the cURL options dynamically in an activity diagram. For that purpose, input an object of type array with name **options** directly into the URL adapter. The array element must be of class **Option** which is located in package **Base Components/Add Ons/URL**. Set the cURL option you want to set to attribute **name** and the value to attribute **value**.

Example:

Example File (Builder project Add-ons/URL):

<bridgeDocPath>\\Add-ons\URL\uml\urlCurl.xml



E2E cURL Options

Option	Data Type	Remarks
`E2E_FORBID_REUSE`	Boolean	If `E2E_FORBID_REUSE` is "true" for a SOAP adapter, then **all** curl connections are closed after the request. This also affects URL adapter options, if there are any.

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Related Pages:

- cURL documentation

Native cURL Options

Internally, the URL adapter uses cURL. The following options - listed in alphabetical order - are currently supported (see the cURL documentation for more details).

Legend:	✅ Option is recognized and forwarded to cURL ⚠️ Option is recognized and forwarded to cURL, but may overwrite built-in URL adapter functionality ❌ Option is not supported and not forwarded to cURL

All cURL data types can be set by using Bridge Strings:

cURL Data Type	Bridge Type	Comment
Array (String)	Array of Strings	You must use a cast() to use this type, because the URL option value is of type String.
Bitmask	String	It is a string containing a string of cURL options separated by the pipe character ("|").
Blob	n/a	**Is not supported.**
Boolean	String	You can use `false` or `0` for false and `true` or `1` for true.
Callback	n/a	**Is not supported.**
Constant	String	Use the defined strings from cURL. For example, for the option `CURLOPT_FTP_FILEMETHOD` you can use `CURLFTPMETHOD_MULTICWD`, `CURLFTPMETHOD_NOCWD` or `CURLFTPMETHOD_SINGLECWD`. The xUML Runtime will convert the strings to numbers.
FileHandle	n/a	**Is not supported.**
Integer	String	String will be converted to a number.
String	String	

Option	Data Type	Supported	Supported cURL Constants / Remarks	Since Version
`CURLOPT_ACCEPT_ENCODING`	String	✅		Runtime 2020.11
`CURLOPT_ACCEPTTIMEOUT_MS`	Integer	✅		Runtime 2020.11
`CURLOPT_APPEND`	String	✅		Runtime 2020.11
`CURLOPT_AUTOREFERER`	Boolean	✅		
`CURLOPT_AWS_SIGV4`	String	✅		Runtime 2021.4
`CURLOPT_BUFFERSIZE`	Integer	✅		
`CURLOPT_CAINFO`	String	⚠️		
`CURLOPT_CAPATH`	String	✅		
`CURLOPT_CA_CACHE_TIMEOUT`	Integer	✅	In seconds (see cURL documentation).	Runtime 2023.2

CURLOPT_CONNECTTIMEOUT	Integer	✅	In seconds (see cURL documentation). This timeout applies to the connection phase of the TCP/IP protocol only. If you want to use timeout limiting the whole interaction time, use CURLOPT_TIMEOUT.	
CURLOPT_CONNECT_ONLY	Boolean	✅		
CURLOPT_CRLF	Boolean	✅		
CURLOPT_CRLFILE	String	✅		Runtime 2020.11
CURLOPT_CONV_FROM_NETWORK_FUNCTION	Callback	❌		
CURLOPT_CONV_FROM_UTF8_FUNCTION	Callback	❌		
CURLOPT_CONV_TO_NETWORK_FUNCTION	Callback	❌		
CURLOPT_COOKIE	String	✅		
CURLOPT_COOKIEFILE	String	✅		
CURLOPT_COOKIEJAR	String	✅		
CURLOPT_COOKIELIST	String	✅		
CURLOPT_COOKIESESSION	Boolean	✅		
CURLOPT_CUSTOMREQUEST	String	⚠️		
CURLOPT_DEBUGDATA	Blob	❌		
CURLOPT_DEBUGFUNCTION	Callback	❌		
CURLOPT_DIRLISTONLY	String	✅		Runtime 2020.11
CURLOPT_DNS_CACHE_TIMEOUT	Integer	✅	In seconds (see cURL documentation).	
CURLOPT_DNS_USE_GLOBAL_CACHE	Boolean	✅		
CURLOPT_DOH_SSL_VERIFYHOST	Boolean	✅		Runtime 2021.4
CURLOPT_DOH_SSL_VERIFYPEER	Boolean	✅		Runtime 2021.4
CURLOPT_DOH_SSL_VERIFYSTATUS	Integer	✅		Runtime 2021.10
CURLOPT_DOH_URL	String	✅		Runtime 2020.11
CURLOPT_EGDSOCKET	String	✅		
CURLOPT_ENCODING	String	✅		

CURLOPT_ERRORBUFFER	Blob	✗			
CURLOPT_EXPECT_100_TIMEOUT_MS	Integer	✓			Runtime 2020.11
CURLOPT_FAILONERROR	Boolean	⚠			
CURLOPT_FILETIME	Boolean	✓			
CURLOPT_FORBID_REUSE	Boolean	✓			
CURLOPT_FRESH_CONNECT	Boolean	✓			
CURLOPT_FTP_ACCOUNT	String	✓			
CURLOPT_FTP_ALTERNATIVE_TO_USER	String	✓			
CURLOPT_FTPAPPEND	Boolean	✓			
CURLOPT_FTP_CREATE_MISSING_DIRS	Boolean	✓			
CURLOPT_FTP_FILEMETHOD	Constant	✓	CURLFTPMETHOD_DEFAULT	Same behavior as if no method is specified.	
			CURLFTPMETHOD_MULTICWD	cURL does a single CWD operation for each path part in the given URL.	
			CURLFTPMETHOD_NOCWD	cURL does no CWD at all.	
			CURLFTPMETHOD_SINGLECWD	libccURL does one CWD with the full target directory and then operates on the file "normally".	
CURLOPT_FTPLISTONLY	Boolean	✓			
CURLOPT_FTP_RESPONSE_TIMEOUT	Integer	✓	In seconds (see cURL documentation).		
CURLOPT_FTPPORT	String	✓			
CURLOPT_FTP_SKIP_PASV_IP	Boolean	✓			
CURLOPT_FTP_SSL	Constant	✓	Deprecated. Use CURLOPT_USE_SSL instead.		
CURLOPT_FTP_SSL_CCC	Boolean	✓	**false** represents `CURLFTPSSL_CCC_NONE`, **true** is for `CURLFTPSSL_CCC_PASSIVE` .		
CURLOPT_FTPSSLAUTH	Constant	✓	CURLFTPAUTH_DEFAULT	Allow cURL to decide.	
			CURLFTPAUTH_SSL	Try SSL first, and only if that fails try TLS.	
			CURLFTPAUTH_TLS	Try TLS first, and only if that fails try SSL.	

CURLOPT_FTP_USE_EPRT	Boolean	✅			
CURLOPT_FTP_USE_EPSV	Boolean	✅			
CURLOPT_FTP_USE_PRET	String	✅			Runtime 2020.11
CURLOPT_FOLLOWLOCATION	Boolean	⚠️			
CURLOPT_HAPPY_EYEBALLS_TIMEOUT_MS	Integer	✅			Runtime 2020.11
CURLOPT_HAPROXYPROTOCOL	String	✅			Runtime 2020.11
CURLOPT_HEADER	Boolean	✅			
CURLOPT_HEADERDATA	Blob	❌			
CURLOPT_HEADERFUNCTION	Callback	❌			
CURLOPT_HTTPAUTH	Constant	✅	CURLAUTH_ANY	cURL will automatically select the one it finds most secure.	
			CURLAUTH_ANYSAFE	all except basic authentication. cURL will automatically select the one it finds most secure.	
			CURLAUTH_AWS_SIGV4	AWS V4 signature (see CURLOPT_AWS_SIGV4).	Runtime 2021.4
			CURLAUTH_BASIC	basic authentication	
			CURLAUTH_DIGEST	digest authentication	
			CURLAUTH_GSSNEGOTIATE	deprecated, use CURLAUTH_NEGOTIATE instead	
			CURLAUTH_NEGOTIATE	negotiate (SPNEGO) authentication	
			CURLAUTH_NTLM	NTLM authentication	
CURLOPT_HTTPGET	Boolean	✅			
CURLOPT_HTTPHEADER	Array (String)	⚠️			
CURLOPT_HTTPPOST	*Other*	❌			
CURLOPT_HTTPPROXYTUNNEL	Boolean	✅			
CURLOPT_HTTP_VERSION	Constant	✅	CURL_HTTP_VERSION_NONE	cURL will use whatever HTTP version it thinks fit.	
			CURL_HTTP_VERSION_1_0	Enforce HTTP 1.0 requests.	

			CURL_HTTP_VERSION_1_1	Enforce HTTP 1.1 requests.	
CURLOPT_HTTP200ALIASES	Array (String)	✅			
CURLOPT_IGNORE_CONTENT_LENGTH	Boolean	✅			
CURLOPT_INFILESIZE	Integer	⚠️			
CURLOPT_INFILESIZE_LARGE	Integer	⚠️			
CURLOPT_INTERFACE	String	⚠️			
CURLOPT_IOCTLDATA	Blob	❌			
CURLOPT_IOCTLFUNCTION	Callback	❌			
CURLOPT_IPRESOLVE	Constant	✅	CURL_IPRESOLVE_WHATEVER	Resolves addresses to all IP versions that your system allows.	
			CURL_IPRESOLVE_V4	Resolve to IPv4 addresses.	
			CURL_IPRESOLVE_V6	Resolve to IPv6 addresses.	
CURLOPT_ISSUERCERT	String	✅			Runtime 2020.11
CURLOPT_KEYPASSWD	String	✅			
CURLOPT_KRB4LEVEL	String	✅			
CURLOPT_LOCALPORT	Integer	✅			
CURLOPT_LOCALPORTRANGE	Integer	✅			
CURLOPT_LOW_SPEED_LIMIT	Integer	✅			
CURLOPT_LOW_SPEED_TIME	Integer	✅	In seconds (see cURL documentation).		
CURLOPT_MAXAGE_CONN	Integer	✅			Runtime 2020.11
CURLOPT_MAXCONNECTS	Integer	✅			
CURLOPT_MAXFILESIZE	Integer	✅			
CURLOPT_MAXFILESIZE_LARGE	Integer	✅			
CURLOPT_MAXLIFETIME_CONN	Integer	✅			Runtime 2022.5
CURLOPT_MAX_RECV_SPEED_LARGE	Integer	✅			

CURLOPT_MAXREDIRS	Integer	⚠			
CURLOPT_MAX_SEND_SPEED_LARGE	Integer	✓			
CURLOPT_MIME_OPTIONS	Constant	✓	CURLMIMEOPT_FORMESCAPE	Tells libcurl to escape multipart form field and file names using the backslash-escaping algorithm rather than percent-encoding (HTTP only). See cURL documentation for more.	Runtime 2022.5
CURLOPT_NETRC	Constant	✓	CURL_NETRC_OPTIONAL	The use of your `~/.netrc` file is optional, and information in the URL is to be preferred.	
			CURL_NETRC_IGNORED	cURL will ignore the file and use only the information in the URL.	
			CURL_NETRC_REQUIRED	The use of the file is required, the information in the URL is ignored.	
CURLOPT_NETRC_FILE	String	✓			
CURLOPT_NEW_DIRECTORY_PERMS	Integer	✓			Runtime 2020.11
CURLOPT_NEW_FILE_PERMS	Integer	✓			Runtime 2020.11
CURLOPT_NOBODY	Boolean	✓			
CURLOPT_NOPROGRESS	Boolean	✓			
CURLPOT_NOPROXY	String	✓	See cURL documentation.		
CURLOPT_NOSIGNAL	Boolean	⚠			
CURLOPT_QUOTE	Array (String)	✓			
CURLOPT_PATH_AS_IS	String	✓			Runtime 2020.11
CURLOPT_PINNEDPUBLICKEY	String	✓			Runtime 2020.11
CURLOPT_PORT	Integer	✓			
CURLOPT_POST	Boolean	✓			
CURLOPT_POSTFIELDS	Blob	✗			
CURLOPT_POSTFIELDSIZE	Integer	✓			
CURLOPT_POSTFIELDSIZE_LARGE	Integer	✓			
CURLOPT_POSTQUOTE	Array (String)	⚠			
CURLOPT_POSTREDIR	String	✓			Runtime 2020.11
CURLOPT_PREQUOTE	Array (String)	✓			
CURLOPT_PREREQDATA	Blob	✗			

CURLOPT_PREREQFUNCTION	Callback	✗			
CURLOPT_PRIVATE	Blob	✗			
CURLOPT_PROGRESSDATA	Blob	✗			
CURLOPT_PROGRESSFUNCTION	Callback	✗			
CURLOPT_PROTOCOLS_STR	String	✗			
CURLOPT_PROXY	String	⚠			
CURLOPT_PROXYAUTH	Constant	✓	CURLAUTH_BASIC	basic authentication	
			CURLAUTH_DIGEST	digest authentication	
			CURLAUTH_NEGOTIATE	negotiate (SPNEGO) authentication	
			CURLAUTH_GSSNEGOTIATE	deprecated, use CURLAUTH_NEGOTIATE instead	
			CURLAUTH_NTLM	NTLM authentication	
			CURLAUTH_ANY	cURL will automatically select the one it finds most secure.	
			CURLAUTH_ANYSAFE	All except basic authentication. cURL will automatically select the one it finds most secure.	
CURLOPT_PROXY_CAINFO	String	✓			Runtime 2020.11
CURLOPT_PROXY_CAPATH	String	✓			Runtime 2020.11
CURLOPT_PROXY_CRLFILE	String	✓			Runtime 2020.11
CURLOPT_PROXYHEADER	String	✓			Runtime 2020.11
CURLOPT_PROXY_ISSUERCERT	String	✓			Runtime 2021.4
CURLOPT_PROXY_KEYPASSWD	String	✓			Runtime 2020.11
CURLOPT_PROXYPASSWORD	String	✓			Runtime 2020.11
CURLOPT_PROXY_PINNEDPUBLICKEY	String	✓			Runtime 2020.11
CURLOPT_PROXYPORT	Integer	⚠			
CURLOPT_PROXY_SERVICE_NAME	String	✓			Runtime 2020.11
CURLOPT_PROXY_SSLCERT	String	✓			Runtime 2020.11

CURLOPT_PROXY_SSLCERTTYPE	String	✅			Runtime 2020.11
CURLOPT_PROXY_SSL_CIPHER_LIST	String	✅			Runtime 2020.11
CURLOPT_PROXY_SSLKEY	String	✅			Runtime 2020.11
CURLOPT_PROXY_SSLKEYTYPE	String	✅			Runtime 2020.11
CURLOPT_PROXY_SSL_OPTIONS	String	✅			Runtime 2020.11
CURLOPT_PROXY_SSL_VERIFYHOST	String	✅			Runtime 2020.11
CURLOPT_PROXY_SSL_VERIFYPEER	String	✅			Runtime 2020.11
CURLOPT_PROXY_SSLVERSION	String	✅			Runtime 2020.11
CURLOPT_PROXY_TLS13_CIPHERS	String	✅			Runtime 2020.11
CURLOPT_PROXY_TRANSFER_MODE	String	✅			Runtime 2020.11
CURLOPT_PROXYTYPE	Constant	⚠️	CURLPROXY_HTTP	HTTP proxy	
			CURLPROXY_SOCKS4	SOCKS4 proxy	
			CURLPROXY_SOCKS5	SOCKS5 proxy	
CURLOPT_PROXYUSERNAME	String	✅			Runtime 2020.11
CURLOPT_PROXYUSERPWD	String	⚠️			
CURLOPT_PUT	Boolean	✅			
CURLOPT_QUICK_EXIT	Boolean	❌			
CURLOPT_RANDOM_FILE	String	✅			
CURLOPT_RANGE	String	✅			
CURLOPT_READDATA	Blob	❌			
CURLOPT_READFUNCTION	Callback	❌			
CURLOPT_REDIR_PROTOCOLS_STR	String	❌			
CURLOPT_REFERER	String	✅			
CURLOPT_RESOLVE	String	✅			Runtime 2020.11
CURLOPT_RESUME_FROM	Integer	✅			

CURLOPT_RESUME_FROM_LARGE	Integer	✅		
CURLOPT_SERVER_RESPONSE_TIMEOUT	Integer	✅		Runtime 2021.4
CURLOPT_SERVICE_NAME	String	✅		Runtime 2020.11
CURLOPT_SOCKS5_AUTH	String	✅		Runtime 2020.11
CURLOPT_SOCKS5_GSSAPI_NEC	String	✅		Runtime 2020.11
CURLOPT_SOCKS5_GSSAPI_SERVICE	String	✅		Runtime 2020.11
CURLOPT_SSH_AUTH_TYPES	Constant	✅	`CURLSSH_AUTH_KEYBOARD` is not implemented for obvious reasons.	
CURLOPT_SSH_HOSTKEYDATA	Blob	❌		
CURLOPT_SSH_HOSTKEYFUNCTION	Callback	❌		
CURLOPT_SSH_HOST_PUBLIC_KEY_SHA256	String	✅		Runtime 2022.5
CURLOPT_SSH_PUBLIC_KEYFILE	String	✅		
CURLOPT_SSH_PUBLIC_KEY_MD5	String	✅		
CURLOPT_SSH_PRIVATE_KEYFILE	String	✅		
CURLOPT_SHARE	FileHandle	❌		
CURLOPT_SSLCERT	String	⚠️		
CURLOPT_SSLCERTTYPE	String	⚠️		
CURLOPT_SSLCERTPASSWD	String	✅		
CURLOPT_SSL_CIPHER_LIST	String	✅		
CURLOPT_SSL_CTX_DATA	Blob	❌		
CURLOPT_SSL_CTX_FUNCTION	Callback	❌		
CURLOPT_SSLENGINE	String	✅		
CURLOPT_SSLENGINE_DEFAULT	*None*	✅		
CURLOPT_SSLKEY	String	⚠️		
CURLOPT_SSLKEYTYPE	String	⚠️		
CURLOPT_SSLKEYPASSWD	String	⚠️		

CURLOPT_SSL_OPTIONS	Constant	✅	CURLSSLOPT_ALLOW_BEAST	Tells libcurl to not attempt to use any workarounds for a security flaw in the SSL3 and TLS1.0 protocols. See cURL documentation for more.	
CURLOPT_SSL_SESSIOID_CACHE	Boolean	✅			
CURLOPT_SSL_VERIFYHOST	Integer	⚠️			
CURLOPT_SSL_VERIFYPEER	Boolean	⚠️			
CURLOPT_SSL_VERIFYSTATUS	Integer	✅			Runtime 2021.10
CURLOPT_SSLVERSION	Constant	✅	CURL_SSLVERSION_DEFAULT	Default action. This will attempt to figure out the remote SSL protocol version.	
			CURL_SSLVERSION_TLSv1	Use TLSv1.x.	
			CURL_SSLVERSION_SSLv2	Use SSLv2.	
			CURL_SSLVERSION_SSLv3	Use SSLv3.	
CURLOPT_STDERR	FileHandle	❌			
CURLOPT_TCP_NODELAY	Boolean	✅			
CURLOPT_TELNETOPTIONS	Array (String)	✅			
CURLOPT_TIMECONDITION	Constant	✅	CURL_TIMECOND_IFMODSINCE		
			CURL_TIMECOND_IFUNMODSINCE		
CURLOPT_TIMEOUT	Integer	✅	In seconds (see cURL documentation).		
CURLOPT_TIMEOUT_MS	Integer	✅	In milliseconds (see cURL documentation).		
CURLOPT_TIMEVALUE	Integer	✅			
CURLOPT_TIMEVALUE_LARGE	Integer	✅			Runtime 2020.11
CURLOPT_TLS13_CIPHERS	String	✅			Runtime 2020.11
CURLOPT_TRANSFERTEXT	Boolean	✅			
CURLOPT_UNRESTRICTED_AUTH	Boolean	✅			
CURLOPT_UPLOAD	Boolean	⚠️			
CURLOPT_URL	String	⚠️			

CURLOPT_USE_SSL	Constant	✅	CURLUSESSL_NONE	Do not attempt to use SSL.	
			CURLUSESSL_TRY	Try using SSL, proceed as normal otherwise.	
			CURLUSESSL_CONTROL	Require SSL for the control connection	
			CURLUSESSL_ALL	Require SSL for all communication.	
CURLOPT_USERAGENT	String	✅			
CURLOPT_USERPWD	String	⚠️			
CURLOPT_VERBOSE	Boolean	⚠️			
CURLOPT_WRITEDATA	Blob	❌			
CURLOPT_WRITEFUNCTION	Callback	❌			
CURLOPT_WS_OPTIONS	Bitmask	❌			
CURLOPT_XOAUTH2_BEARER	String	✅			Runtime 2020.11