

**NAME**

CURLOPT\_DEBUGFUNCTION – debug callback

**SYNOPSIS**

```
#include <curl/curl.h>
```

```
typedef enum {
    CURLINFO_TEXT = 0,
    CURLINFO_HEADER_IN, /* 1 */
    CURLINFO_HEADER_OUT, /* 2 */
    CURLINFO_DATA_IN, /* 3 */
    CURLINFO_DATA_OUT, /* 4 */
    CURLINFO_SSL_DATA_IN, /* 5 */
    CURLINFO_SSL_DATA_OUT, /* 6 */
    CURLINFO_END
} curl_infotype;
```

```
int debug_callback(CURL *handle,
                  curl_infotype type,
                  char *data,
                  size_t size,
                  void *userptr);
```

```
CURLcode curl_easy_setopt(CURL *handle, CURLOPT_DEBUGFUNCTION,
                          debug_callback);
```

**DESCRIPTION**

Pass a pointer to your callback function, which should match the prototype shown above.

*CURLOPT\_DEBUGFUNCTION(3)* replaces the standard debug function used when *CURLOPT\_VERBOSE(3)* is in effect. This callback receives debug information, as specified in the *type* argument. This function must return 0. The *data* pointed to by the *char \** passed to this function WILL NOT be zero terminated, but will be exactly of the *size* as told by the *size* argument.

The *userptr* argument is the pointer set with *CURLOPT\_DEBUGDATA(3)*.

Available *curl\_infotype* values:

CURLINFO\_TEXT

The data is informational text.

CURLINFO\_HEADER\_IN

The data is header (or header-like) data received from the peer.

CURLINFO\_HEADER\_OUT

The data is header (or header-like) data sent to the peer.

CURLINFO\_DATA\_IN

The data is protocol data received from the peer.

CURLINFO\_DATA\_OUT

The data is protocol data sent to the peer.

CURLINFO\_SSL\_DATA\_OUT

The data is SSL/TLS (binary) data sent to the peer.

CURLINFO\_SSL\_DATA\_IN

The data is SSL/TLS (binary) data received from the peer.

**DEFAULT**

NULL

**PROTOCOLS**

All

**EXAMPLE**

```

static
void dump(const char *text,
          FILE *stream, unsigned char *ptr, size_t size)
{
    size_t i;
    size_t c;
    unsigned int width=0x10;

    fprintf(stream, "%s, %10.10ld bytes (0x%8.8lx)0,
                text, (long)size, (long)size);

    for(i=0; i<size; i+= width) {
        fprintf(stream, "%4.4lx: ", (long)i);

        /* show hex to the left */
        for(c = 0; c < width; c++) {
            if(i+c < size)
                fprintf(stream, "%02x ", ptr[i+c]);
            else
                fputs(" ", stream);
        }

        /* show data on the right */
        for(c = 0; (c < width) && (i+c < size); c++)
            fputc(ptr[i+c]>=0x20) && (ptr[i+c]<0x80)?ptr[i+c]:'.', stream);

        fputc('\0', stream); /* newline */
    }
}

static
int my_trace(CURL *handle, curl_infotype type,
            char *data, size_t size,
            void *userp)
{
    const char *text;
    (void)handle; /* prevent compiler warning */

    switch (type) {
    case CURLINFO_TEXT:
        fprintf(stderr, "== Info: %s", data);
    default: /* in case a new one is introduced to shock us */
        return 0;

    case CURLINFO_HEADER_OUT:
        text = "=> Send header";
        break;
    case CURLINFO_DATA_OUT:
        text = "=> Send data";

```

```

        break;
    case CURLINFO_SSL_DATA_OUT:
        text = "> Send SSL data";
        break;
    case CURLINFO_HEADER_IN:
        text = "<= Recv header";
        break;
    case CURLINFO_DATA_IN:
        text = "<= Recv data";
        break;
    case CURLINFO_SSL_DATA_IN:
        text = "<= Recv SSL data";
        break;
    }

    dump(text, stderr, (unsigned char *)data, size);
    return 0;
}

int main(void)
{
    CURL *curl;
    CURLcode res;

    curl = curl_easy_init();
    if(curl) {
        curl_easy_setopt(curl, CURLOPT_DEBUGFUNCTION, my_trace);

        /* the DEBUGFUNCTION has no effect until we enable VERBOSE */
        curl_easy_setopt(curl, CURLOPT_VERBOSE, 1L);

        /* example.com is redirected, so we tell libcurl to follow redirection */
        curl_easy_setopt(curl, CURLOPT_FOLLOWLOCATION, 1L);

        curl_easy_setopt(curl, CURLOPT_URL, "http://example.com/");
        res = curl_easy_perform(curl);
        /* Check for errors */
        if(res != CURLE_OK)
            fprintf(stderr, "curl_easy_perform() failed: %s0,
                curl_easy_strerror(res));

        /* always cleanup */
        curl_easy_cleanup(curl);
    }
    return 0;
}

```

**AVAILABILITY**

Always

**RETURN VALUE**

Returns CURLE\_OK

**SEE ALSO**

CURLOPT\_VERBOSE(3), CURLOPT\_DEBUGDATA(3),