



Full credit is given to the above companies including the OS that this PDF file was generated!

Red Hat Enterprise Linux Release 9.2 Manual Pages on 'BIO_set_write_buffer_size.3oss1' command

`$ man BIO_set_write_buffer_size.3oss1`

BIO_F_BUFFER(3oss1) OpenSSL BIO_F_BUFFER(3oss1)

NAME

BIO_get_buffer_num_lines, BIO_set_read_buffer_size,
BIO_set_write_buffer_size, BIO_set_buffer_size,
BIO_set_buffer_read_data, BIO_f_buffer - buffering BIO

SYNOPSIS

```
#include <openssl/bio.h>
```

```
const BIO_METHOD *BIO_f_buffer(void);
```

```
long BIO_get_buffer_num_lines(BIO *b);
```

```
long BIO_set_read_buffer_size(BIO *b, long size);
```

```
long BIO_set_write_buffer_size(BIO *b, long size);
```

```
long BIO_set_buffer_size(BIO *b, long size);
```

```
long BIO_set_buffer_read_data(BIO *b, void *buf, long num);
```

DESCRIPTION

BIO_f_buffer() returns the buffering BIO method.

Data written to a buffering BIO is buffered and periodically written to the next BIO in the chain. Data read from a buffering BIO comes from an

internal buffer which is filled from the next BIO in the chain. Both `BIO_gets()` and `BIO_puts()` are supported.

Calling `BIO_reset()` on a buffering BIO clears any buffered data.

`BIO_get_buffer_num_lines()` returns the number of lines currently buffered.

`BIO_set_read_buffer_size()`, `BIO_set_write_buffer_size()` and `BIO_set_buffer_size()` set the read, write or both read and write buffer sizes to size. The initial buffer size is `DEFAULT_BUFFER_SIZE`, currently 4096. Any attempt to reduce the buffer size below `DEFAULT_BUFFER_SIZE` is ignored. Any buffered data is cleared when the buffer is resized.

`BIO_set_buffer_read_data()` clears the read buffer and fills it with num bytes of buf. If num is larger than the current buffer size the buffer is expanded.

NOTES

These functions, other than `BIO_f_buffer()`, are implemented as macros.

Buffering BIOs implement `BIO_read_ex()` and `BIO_gets()` by using `BIO_read_ex()` operations on the next BIO in the chain and storing the result in an internal buffer, from which bytes are given back to the caller as appropriate for the call; a `BIO_gets()` is guaranteed to give the caller a whole line, and `BIO_read_ex()` is guaranteed to give the caller the number of bytes it asks for, unless there's an error or end of communication is reached in the next BIO. By prepending a buffering BIO to a chain it is therefore possible to provide `BIO_gets()` or exact size `BIO_read_ex()` functionality if the following BIOs do not support it.

Do not add more than one `BIO_f_buffer()` to a BIO chain. The result of doing so will force a full read of the size of the internal buffer of the top `BIO_f_buffer()`, which is 4 KiB at a minimum.

Data is only written to the next BIO in the chain when the write buffer fills or when `BIO_flush()` is called. It is therefore important to call `BIO_flush()` whenever any pending data should be written such as when removing a buffering BIO using `BIO_pop()`. `BIO_flush()` may need to be retried if the ultimate source/sink BIO is non blocking.

RETURN VALUES

`BIO_f_buffer()` returns the buffering BIO method.

`BIO_get_buffer_num_lines()` returns the number of lines buffered (may be 0) or a negative value in case of errors.

`BIO_set_read_buffer_size()`, `BIO_set_write_buffer_size()` and `BIO_set_buffer_size()` return 1 if the buffer was successfully resized or ≤ 0 for failure.

`BIO_set_buffer_read_data()` returns 1 if the data was set correctly or ≤ 0 if there was an error.

SEE ALSO

`bio(7)`, `BIO_reset(3)`, `BIO_flush(3)`, `BIO_pop(3)`, `BIO_ctrl(3)`.

COPYRIGHT

Copyright 2000-2021 The OpenSSL Project Authors. All Rights Reserved.

Licensed under the Apache License 2.0 (the "License"). You may not use this file except in compliance with the License. You can obtain a copy in the file `LICENSE` in the source distribution or at <https://www.openssl.org/source/license.html>.

3.0.7

2023-07-13

BIO_F_BUFFER(3ossl)