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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'CTLOG\_new\_from\_base64\_ex.3ossl' command**

**`$ man CTLOG_new_from_base64_ex.3ossl`**

CTLOG\_NEW(3ossl)                    OpenSSL                    CTLOG\_NEW(3ossl)

### NAME

CTLOG\_new\_ex, CTLOG\_new, CTLOG\_new\_from\_base64,  
CTLOG\_new\_from\_base64\_ex, CTLOG\_free, CTLOG\_get0\_name,  
CTLOG\_get0\_log\_id, CTLOG\_get0\_public\_key - encapsulates information  
about a Certificate Transparency log

### SYNOPSIS

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

```
CTLOG *CTLOG_new_ex(EVP_PKEY *public_key, const char *name,  
                  OSSL_LIB_CTX *libctx, const char *propq);
```

```
CTLOG *CTLOG_new(EVP_PKEY *public_key, const char *name);
```

```
int CTLOG_new_from_base64_ex(CTLOG **ct_log, const char *pkey_base64,  
                          const char *name, OSSL_LIB_CTX *libctx,  
                          const char *propq);
```

```
int CTLOG_new_from_base64(CTLOG ** ct_log,  
                          const char *pkey_base64, const char *name);
```

```
void CTLOG_free(CTLOG *log);
```

```
const char *CTLOG_get0_name(const CTLOG *log);
```

```
void CTLOG_get0_log_id(const CTLOG *log, const uint8_t **log_id,
```

```
size_t *log_id_len);  
EVP_PKEY *CTLOG_get0_public_key(const CTLOG *log);
```

## DESCRIPTION

`CTLOG_new_ex()` returns a new CTLOG that represents the Certificate Transparency (CT) log with the given public key and associates it with the library context `libctx` and property query string `propq`. A name must also be provided that can be used to help users identify this log.

Ownership of the public key is transferred.

`CTLOG_new()` does the same thing as `CTLOG_new_ex()` but with the default library context and the default property query string.

`CTLOG_new_from_base64_ex()` also creates a new CTLOG, but takes the public key in base64-encoded DER form and sets the `ct_log` pointer to point to the new CTLOG. The base64 will be decoded and the public key parsed. The CTLOG will be associated with the given library context `libctx` and property query string `propq`.

`CTLOG_new_from_base64()` does the same thing as `CTLOG_new_from_base64_ex()` except that the default library context and property query string are used.

Regardless of whether `CTLOG_new()` or `CTLOG_new_from_base64()` is used, it is the caller's responsibility to pass the CTLOG to `CTLOG_free()` once it is no longer needed. This will delete it and, if created by `CTLOG_new()`, the `EVP_PKEY` that was passed to it.

`CTLOG_get0_name()` returns the name of the log, as provided when the CTLOG was created. Ownership of the string remains with the CTLOG.

`CTLOG_get0_log_id()` sets `*log_id` to point to a string containing that log's LogID (see RFC 6962). It sets `*log_id_len` to the length of that

LogID. For a v1 CT log, the LogID will be a SHA-256 hash (i.e. 32 bytes long). Ownership of the string remains with the CTLOG.

CTLOG\_get0\_public\_key() returns the public key of the CT log. Ownership of the EVP\_PKEY remains with the CTLOG.

## RETURN VALUES

CTLOG\_new() will return NULL if an error occurs.

CTLOG\_new\_from\_base64() will return 1 on success, 0 otherwise.

## SEE ALSO

ct(7)

## HISTORY

The functions CTLOG\_new\_ex() and CTLOG\_new\_from\_base64\_ex() were added in OpenSSL 3.0. All other functions were added in OpenSSL 1.1.0.

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