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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'X509V3\_set\_ctx.3oss1' command**

**\$ man X509V3\_set\_ctx.3oss1**

X509V3\_SET\_CTX(3oss1)          OpenSSL          X509V3\_SET\_CTX(3oss1)

### NAME

X509V3\_set\_ctx, X509V3\_set\_issuer\_pkey - X.509 v3 extension generation utilities

### SYNOPSIS

```
#include <openssl/x509v3.h>

void X509V3_set_ctx(X509V3_CTX *ctx, X509 *issuer, X509 *subject,
                   X509_REQ *req, X509_CRL *crl, int flags);

int X509V3_set_issuer_pkey(X509V3_CTX *ctx, EVP_PKEY *pkey);
```

### DESCRIPTION

X509V3\_set\_ctx() fills in the basic fields of ctx of type X509V3\_CTX, providing details potentially needed by functions producing X509 v3 extensions, e.g., to look up values for filling in authority key identifiers. Any of subject, req, or crl may be provided, pointing to a certificate, certification request, or certificate revocation list, respectively. When constructing the subject key identifier of a certificate by computing a hash value of its public key, the public key is taken from subject or req. Similarly, when constructing subject alternative names from any email addresses contained in a subject DN,

the subject DN is taken from subject or req. If subject or crl is provided, issuer should point to its issuer, for instance to help generating an authority key identifier extension. Note that if subject is provided, issuer may be the same as subject, which means that subject is self-issued (or even self-signed). flags may be 0 or contain X509V3\_CTX\_TEST, which means that just the syntax of extension definitions is to be checked without actually producing an extension, or X509V3\_CTX\_REPLACE, which means that each X.509v3 extension added as defined in some configuration section shall replace any already existing extension with the same OID.

X509V3\_set\_issuer\_pkey() explicitly sets the issuer private key of the certificate that has been provided in ctx. This should be done for self-issued certificates (which may be self-signed or not) to provide fallback data for the authority key identifier extension.

## RETURN VALUES

X509V3\_set\_ctx() and X509V3\_set\_issuer\_pkey() return 1 on success and 0 on error.

## SEE ALSO

X509\_add\_ext(3)

## HISTORY

X509V3\_set\_issuer\_pkey() was added in OpenSSL 3.0.

CTX\_TEST was deprecated in OpenSSL 3.0; use X509V3\_CTX\_TEST instead.

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