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Rocky Enterprise Linux 9.2 Manual Pages on command 'Crypt::Digest::SHA512.3pm'

\$ man Crypt::Digest::SHA512.3pm

Crypt::Digest::SHA512(3pm) User Contributed Perl Documentation Crypt::Digest::SHA512(3pm)

NAME

Crypt::Digest::SHA512 - Hash function SHA-512 [size: 512 bits]

SYNOPSIS

Functional interface:

```
use Crypt::Digest::SHA512 qw( sha512 sha512_hex sha512_b64 sha512_b64u
                               sha512_file sha512_file_hex sha512_file_b64 sha512_file_b64u );
```

calculate digest from string/buffer

```
$sha512_raw = sha512('data string');
```

```
$sha512_hex = sha512_hex('data string');
```

```
$sha512_b64 = sha512_b64('data string');
```

```
$sha512_b64u = sha512_b64u('data string');
```

calculate digest from file

```
$sha512_raw = sha512_file('filename.dat');
```

```
$sha512_hex = sha512_file_hex('filename.dat');
```

```
$sha512_b64 = sha512_file_b64('filename.dat');
```

```
$sha512_b64u = sha512_file_b64u('filename.dat');
```

calculate digest from filehandle

```
$sha512_raw = sha512_file(*FILEHANDLE);
```

```
$sha512_hex = sha512_file_hex(*FILEHANDLE);
```

```

$sha512_b64 = sha512_file_b64(*FILEHANDLE);
$sha512_b64u = sha512_file_b64u(*FILEHANDLE);

### OO interface:
use Crypt::Digest::SHA512;

$d = Crypt::Digest::SHA512->new;
$d->add('any data');
$d->addfile('filename.dat');
$d->addfile(*FILEHANDLE);
$result_raw = $d->digest; # raw bytes
$result_hex = $d->hexdigest; # hexadecimal form
$result_b64 = $d->b64digest; # Base64 form
$result_b64u = $d->b64udigest; # Base64 URL Safe form

```

DESCRIPTION

Provides an interface to the SHA512 digest algorithm.

EXPORT

Nothing is exported by default.

You can export selected functions:

```

use Crypt::Digest::SHA512 qw(sha512 sha512_hex sha512_b64 sha512_b64u
    sha512_file sha512_file_hex sha512_file_b64 sha512_file_b64u);

```

Or all of them at once:

```

use Crypt::Digest::SHA512 ':all';

```

FUNCTIONS

sha512

Logically joins all arguments into a single string, and returns its SHA512 digest encoded

as a binary string.

```
$sha512_raw = sha512('data string');
```

```
#or
```

```
$sha512_raw = sha512('any data', 'more data', 'even more data');
```

sha512_hex

Logically joins all arguments into a single string, and returns its SHA512 digest encoded as a hexadecimal string.

```
$sha512_hex = sha512_hex('data string');
```

```
#or
```

```
$sha512_hex = sha512_hex('any data', 'more data', 'even more data');
```

sha512_b64

Logically joins all arguments into a single string, and returns its SHA512 digest encoded as a Base64 string, with trailing '=' padding.

```
$sha512_b64 = sha512_b64('data string');
```

```
#or
```

```
$sha512_b64 = sha512_b64('any data', 'more data', 'even more data');
```

sha512_b64u

Logically joins all arguments into a single string, and returns its SHA512 digest encoded as a Base64 URL Safe string (see RFC 4648 section 5).

```
$sha512_b64url = sha512_b64u('data string');
```

```
#or
```

```
$sha512_b64url = sha512_b64u('any data', 'more data', 'even more data');
```

sha512_file

Reads file (defined by filename or filehandle) content, and returns its SHA512 digest encoded as a binary string.

```
$sha512_raw = sha512_file('filename.dat');  
  
#or  
  
$sha512_raw = sha512_file(*FILEHANDLE);
```

sha512_file_hex

Reads file (defined by filename or filehandle) content, and returns its SHA512 digest encoded as a hexadecimal string.

```
$sha512_hex = sha512_file_hex('filename.dat');  
  
#or  
  
$sha512_hex = sha512_file_hex(*FILEHANDLE);
```

BEWARE: You have to make sure that the filehandle is in binary mode before you pass it as argument to the addfile() method.

sha512_file_b64

Reads file (defined by filename or filehandle) content, and returns its SHA512 digest encoded as a Base64 string, with trailing '=' padding.

```
$sha512_b64 = sha512_file_b64('filename.dat');  
  
#or  
  
$sha512_b64 = sha512_file_b64(*FILEHANDLE);
```

sha512_file_b64u

Reads file (defined by filename or filehandle) content, and returns its SHA512 digest encoded as a Base64 URL Safe string (see RFC 4648 section 5).

```
$sha512_b64url = sha512_file_b64u('filename.dat');  
  
#or  
  
$sha512_b64url = sha512_file_b64u(*FILEHANDLE);
```

The OO interface provides the same set of functions as Crypt::Digest.

new

```
$d = Crypt::Digest::SHA512->new();
```

clone

```
$d->clone();
```

reset

```
$d->reset();
```

add

```
$d->add('any data');
```

#or

```
$d->add('any data', 'more data', 'even more data');
```

addfile

```
$d->addfile('filename.dat');
```

#or

```
$d->addfile(*FILEHANDLE);
```

add_bits

```
$d->add_bits($bit_string); # e.g. $d->add_bits("111100001010");
```

#or

```
$d->add_bits($data, $nbits); # e.g. $d->add_bits("\xF0xA0", 16);
```

hashsize

```
$d->hashsize;
```

#or

```
Crypt::Digest::SHA512->hashsize();
```

#or

```
Crypt::Digest::SHA512::hashsize();
```

digest

```
$result_raw = $d->digest();
```

hexdigest

```
$result_hex = $d->hexdigest();
```

b64digest

```
$result_b64 = $d->b64digest();
```

b64udigest

```
$result_b64url = $d->b64udigest();
```

SEE ALSO

? CryptX, Crypt::Digest

? <<https://en.wikipedia.org/wiki/SHA-2>>

perl v5.34.0

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Crypt::Digest::SHA512(3pm)