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Rocky Enterprise Linux 9.2 Manual Pages on command 'Crypt::Digest::SHA3_256.3pm'

\$ man Crypt::Digest::SHA3_256.3pm

Crypt::Digest::SHA3_256(3pm) User Contributed Perl Documentation Crypt::Digest::SHA3_256(3pm)

NAME

Crypt::Digest::SHA3_256 - Hash function SHA3-256 [size: 256 bits]

SYNOPSIS

Functional interface:

```
use Crypt::Digest::SHA3_256 qw( sha3_256 sha3_256_hex sha3_256_b64 sha3_256_b64u
                               sha3_256_file sha3_256_file_hex sha3_256_file_b64 sha3_256_file_b64u );
```

calculate digest from string/buffer

```
$sha3_256_raw = sha3_256('data string');
```

```
$sha3_256_hex = sha3_256_hex('data string');
```

```
$sha3_256_b64 = sha3_256_b64('data string');
```

```
$sha3_256_b64u = sha3_256_b64u('data string');
```

calculate digest from file

```
$sha3_256_raw = sha3_256_file('filename.dat');
```

```
$sha3_256_hex = sha3_256_file_hex('filename.dat');
```

```
$sha3_256_b64 = sha3_256_file_b64('filename.dat');
```

```
$sha3_256_b64u = sha3_256_file_b64u('filename.dat');
```

calculate digest from filehandle

```
$sha3_256_raw = sha3_256_file(*FILEHANDLE);
```

```
$sha3_256_hex = sha3_256_file_hex(*FILEHANDLE);
```

```

$sha3_256_b64 = sha3_256_file_b64(*FILEHANDLE);
$sha3_256_b64u = sha3_256_file_b64u(*FILEHANDLE);

### OO interface:
use Crypt::Digest::SHA3_256;

$d = Crypt::Digest::SHA3_256->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 SHA3_256 digest algorithm.

EXPORT

Nothing is exported by default.

You can export selected functions:

```

use Crypt::Digest::SHA3_256 qw(sha3_256 sha3_256_hex sha3_256_b64 sha3_256_b64u
    sha3_256_file sha3_256_file_hex sha3_256_file_b64 sha3_256_file_b64u);

```

Or all of them at once:

```

use Crypt::Digest::SHA3_256 ':all';

```

FUNCTIONS

sha3_256

Logically joins all arguments into a single string, and returns its SHA3_256 digest

encoded as a binary string.

```
$sha3_256_raw = sha3_256('data string');
```

```
#or
```

```
$sha3_256_raw = sha3_256('any data', 'more data', 'even more data');
```

sha3_256_hex

Logically joins all arguments into a single string, and returns its SHA3_256 digest encoded as a hexadecimal string.

```
$sha3_256_hex = sha3_256_hex('data string');
```

```
#or
```

```
$sha3_256_hex = sha3_256_hex('any data', 'more data', 'even more data');
```

sha3_256_b64

Logically joins all arguments into a single string, and returns its SHA3_256 digest encoded as a Base64 string, with trailing '=' padding.

```
$sha3_256_b64 = sha3_256_b64('data string');
```

```
#or
```

```
$sha3_256_b64 = sha3_256_b64('any data', 'more data', 'even more data');
```

sha3_256_b64u

Logically joins all arguments into a single string, and returns its SHA3_256 digest encoded as a Base64 URL Safe string (see RFC 4648 section 5).

```
$sha3_256_b64url = sha3_256_b64u('data string');
```

```
#or
```

```
$sha3_256_b64url = sha3_256_b64u('any data', 'more data', 'even more data');
```

sha3_256_file

Reads file (defined by filename or filehandle) content, and returns its SHA3_256 digest encoded as a binary string.

```
$sha3_256_raw = sha3_256_file('filename.dat');
```

```
#or
```

```
$sha3_256_raw = sha3_256_file(*FILEHANDLE);
```

sha3_256_file_hex

Reads file (defined by filename or filehandle) content, and returns its SHA3_256 digest encoded as a hexadecimal string.

```
$sha3_256_hex = sha3_256_file_hex('filename.dat');
```

```
#or
```

```
$sha3_256_hex = sha3_256_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.

sha3_256_file_b64

Reads file (defined by filename or filehandle) content, and returns its SHA3_256 digest encoded as a Base64 string, with trailing '=' padding.

```
$sha3_256_b64 = sha3_256_file_b64('filename.dat');
```

```
#or
```

```
$sha3_256_b64 = sha3_256_file_b64(*FILEHANDLE);
```

sha3_256_file_b64u

Reads file (defined by filename or filehandle) content, and returns its SHA3_256 digest encoded as a Base64 URL Safe string (see RFC 4648 section 5).

```
$sha3_256_b64url = sha3_256_file_b64u('filename.dat');
```

```
#or
```

```
$sha3_256_b64url = sha3_256_file_b64u(*FILEHANDLE);
```

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

new

```
$d = Crypt::Digest::SHA3_256->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::SHA3_256->hashsize();
```

#or

```
Crypt::Digest::SHA3_256::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-3>>

perl v5.34.0

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