



**Full credit is given to the above companies including the Operating System (OS) that this PDF file was generated!**

***Rocky Enterprise Linux 9.2 Manual Pages on command 'Crypt::Digest::SHA1.3pm'***

***\$ man Crypt::Digest::SHA1.3pm***

Crypt::Digest::SHA1(3pm)    User Contributed Perl Documentation    Crypt::Digest::SHA1(3pm)

**NAME**

Crypt::Digest::SHA1 - Hash function SHA-1 [size: 160 bits]

**SYNOPSIS**

### Functional interface:

```
use Crypt::Digest::SHA1 qw( sha1 sha1_hex sha1_b64 sha1_b64u
                           sha1_file sha1_file_hex sha1_file_b64 sha1_file_b64u );
```

# calculate digest from string/buffer

```
$sha1_raw = sha1('data string');
```

```
$sha1_hex = sha1_hex('data string');
```

```
$sha1_b64 = sha1_b64('data string');
```

```
$sha1_b64u = sha1_b64u('data string');
```

# calculate digest from file

```
$sha1_raw = sha1_file('filename.dat');
```

```
$sha1_hex = sha1_file_hex('filename.dat');
```

```
$sha1_b64 = sha1_file_b64('filename.dat');
```

```
$sha1_b64u = sha1_file_b64u('filename.dat');
```

# calculate digest from filehandle

```
$sha1_raw = sha1_file(*FILEHANDLE);
```

```
$sha1_hex = sha1_file_hex(*FILEHANDLE);
```

```

$sha1_b64 = sha1_file_b64(*FILEHANDLE);
$sha1_b64u = sha1_file_b64u(*FILEHANDLE);

### OO interface:
use Crypt::Digest::SHA1;

$d = Crypt::Digest::SHA1->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 SHA1 digest algorithm.

## EXPORT

Nothing is exported by default.

You can export selected functions:

```

use Crypt::Digest::SHA1 qw(sha1 sha1_hex sha1_b64 sha1_b64u
                           sha1_file sha1_file_hex sha1_file_b64 sha1_file_b64u);

```

Or all of them at once:

```

use Crypt::Digest::SHA1 'all';

```

## FUNCTIONS

sha1

Logically joins all arguments into a single string, and returns its SHA1 digest encoded as

a binary string.

```
$sha1_raw = sha1('data string');
```

```
#or
```

```
$sha1_raw = sha1('any data', 'more data', 'even more data');
```

#### sha1\_hex

Logically joins all arguments into a single string, and returns its SHA1 digest encoded as a hexadecimal string.

```
$sha1_hex = sha1_hex('data string');
```

```
#or
```

```
$sha1_hex = sha1_hex('any data', 'more data', 'even more data');
```

#### sha1\_b64

Logically joins all arguments into a single string, and returns its SHA1 digest encoded as a Base64 string, with trailing '=' padding.

```
$sha1_b64 = sha1_b64('data string');
```

```
#or
```

```
$sha1_b64 = sha1_b64('any data', 'more data', 'even more data');
```

#### sha1\_b64u

Logically joins all arguments into a single string, and returns its SHA1 digest encoded as a Base64 URL Safe string (see RFC 4648 section 5).

```
$sha1_b64url = sha1_b64u('data string');
```

```
#or
```

```
$sha1_b64url = sha1_b64u('any data', 'more data', 'even more data');
```

#### sha1\_file

Reads file (defined by filename or filehandle) content, and returns its SHA1 digest encoded as a binary string.

```
$sha1_raw = sha1_file('filename.dat');
```

```
#or
```

```
$sha1_raw = sha1_file(*FILEHANDLE);
```

#### sha1\_file\_hex

Reads file (defined by filename or filehandle) content, and returns its SHA1 digest encoded as a hexadecimal string.

```
$sha1_hex = sha1_file_hex('filename.dat');
```

```
#or
```

```
$sha1_hex = sha1_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.

#### sha1\_file\_b64

Reads file (defined by filename or filehandle) content, and returns its SHA1 digest encoded as a Base64 string, with trailing '=' padding.

```
$sha1_b64 = sha1_file_b64('filename.dat');
```

```
#or
```

```
$sha1_b64 = sha1_file_b64(*FILEHANDLE);
```

#### sha1\_file\_b64u

Reads file (defined by filename or filehandle) content, and returns its SHA1 digest encoded as a Base64 URL Safe string (see RFC 4648 section 5).

```
$sha1_b64url = sha1_file_b64u('filename.dat');
```

```
#or
```

```
$sha1_b64url = sha1_file_b64u(*FILEHANDLE);
```

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

new

```
$d = Crypt::Digest::SHA1->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::SHA1->hashsize();
```

#or

```
Crypt::Digest::SHA1::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-1>>

perl v5.34.0

2022-02-06

Crypt::Digest::SHA1(3pm)