



# class PKCS5::PBKDF2

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```
unit package PKCS5;  
class PBKDF2 { ... }
```

## Synopsis

```
use PKCS5::PBKDF2;  
  
my PKCS5::PBKDF2 $p .= new;  
  
my Str $spw = $p.derive-hex(  
  Buf.new('pencil'.encode),  
  Buf.new( 65, 37, 194, 71, 228, 58, 177, 233, 60, 109, 255, 118),  
  4096,  
);  
  
# returns '1d96ee3a529b5a5f9e47c01f229a2cb8a6e15f7d'
```

## Methods

### new

```
submethod BUILD (  
  Callable :$CGH = &sha1,  
  Int :$dklen,  
)
```

Initialize the derivation function. The cryptographic hash function `CGH` is set to `sha1` from the `openssl::Digest` by default, Other supported subs are `sha256` and `md5` also from that module. `Md5` can also be used from `Digest::MD5` but is very much slower.

`Dklen` is the number of bytes output from the `derive()` function. When not given, it becomes the size of the output length of the `CGH`.

### derive

```
method derive ( Buf $pw, Buf $salt, Int $i --> Buf )
```

Calculate the derived key given the password `$pw` and a salt `$salt`. It returns a Buf of length `dklen` specified to `new()` when initializing.

## derive-hex

```
method derive-hex ( Buf $pw, Buf $salt, Int $i --> Str )
```

Does the same as `derive()` but converts the output Buf into a hexadecimal string.

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