Windows Native SSL: Secure Communication

Version 7.0

July 27, 2018

```
(require net/win32-ssl)          package: base
```

The `net/win32-ssl` module offers a fraction of the functionality of `openssl` and works only on Windows, but it has the advantage that it works before OpenSSL libraries are installed.

```
(win32-ssl-connect  hostname
                    port-no
                    [client-protocol])
 → (and/c input-port? win32-ssl-port?)
    (and/c output-port? win32-ssl-port?)
  hostname : string?
  port-no : (integer-in 1 65535)
  client-protocol : (or/c 'secure 'auto
                          'sslv2-or-v3 'sslv2 'sslv3 'tls 'tls11 'tls12)
                  = 'auto
```

Like `ssl-connect`, but without support for client contexts.

```
(win32-ssl-abandon-port in) → void?
  in : (and/c win32-ssl-port? output-port?)
```

Analogous to `ssl-abandon-port`.

```
(ports->win32-ssl-ports  input-port
                         output-port
                         #:encrypt protocol
                         [#:hostname hostname])
 → (and/c input-port? win32-ssl-port?)
    (and/c output-port? win32-ssl-port?)
  input-port : input-port?
```

```
output-port : output-port?
protocol : (or/c 'secure 'auto
                 'sslv2-or-v3 'sslv2 'sslv3 'tls 'tls11 'tls12)
hostname : (or/c #f string?) = #f
```

Analogous to `ports->ssl-ports`.

If hostname verification is enabled via `'secure`, the peer server's certificate is checked against *hostname*.

Changed in version 6.3.0.12 of package `base`: Added the `#:hostname` argument.

```
(win32-ssl-port? v) → boolean?
  v : any/c
```

Returns `#t` of *v* is an SSL port produced by `win32-ssl-connect` or `ports->win32-ssl-ports`.

```
win32-ssl-available? : boolean?
```

A boolean value that reports whether the Windows native SSL library was successfully loaded. Calling `win32-ssl-connect`, etc. when this value is `#f` will raise an exception.