

## qDecoder On-line Reference

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```
creating contrib/qcValue-1.0/Makefile
```

```
$ ls -asCF (Makefile
total 221
 1 ./          44 README      1 contrib/
 1 ../         60 README.pdf   1 examples/
 1 AUTHORS     2 config.cache  6 install-sh*
26 COPYING    2 config.log    2 qDecoder.jpg
 2 DISCLAIMER  6 config.status* 1 rfc/
 3 Makefile    55 configure*   1 src/
 3 Makefile.in 3 configure.in
```

```
$ make
==> src
gcc -g -O2 -DSTDC_HEADERS=1 -DHAVE_CTYPE_H=1 -DHAVE_TIME_H=1 -DHAVE_SYS_STAT_H=1
-DHAVE_SYS_TYPES_H=1 -DHAVE_STRFTIME=1 -DHAVE_VPRINTF=1 -DHAVE_STRDUP=1 -DHAVE_
STRSTR=1 -l. -c -o qDecoder.o qDecoder.c
...( )...
/bin/rm -f libqDecoder.so
ln -s libqDecoder.so.1 libqDecoder.so
<=== src
==> examples
gcc -g -O2 -DSTDC_HEADERS=1 -DHAVE_CTYPE_H=1 -DHAVE_TIME_H=1 -DHAVE_SYS_STAT_H=1
-DHAVE_SYS_TYPES_H=1 -DHAVE_STRFTIME=1 -DHAVE_VPRINTF=1 -DHAVE_STRDUP=1 -DHAVE_
STRSTR=1 -l. -l../src -c -o fetch.o fetch.c
...( )...
gcc -g -O2 -DSTDC_HEADERS=1 -DHAVE_CTYPE_H=1 -DHAVE_TIME_H=1 -DHAVE_SYS_STAT_H=1
-DHAVE_SYS_TYPES_H=1 -DHAVE_STRFTIME=1 -DHAVE_VPRINTF=1 -DHAVE_STRDUP=1 -DHAVE_
STRSTR=1 -l. -l../src -o arglist.cgi arglist.o ../src/libqDecoder.a
<=== examples
...( )...
```

```
) ``make''가 PATH 가 make가
`/usr/ccs/bin/' PATH 가
)
clean'' ``make clean'' configure Makefile ``make
, ``make distclean''
```

```
``make install'' ``make install''
configure --prefix, --libdir, --includedir
configure
/usr/local/lib, /usr/local/include 가
```

```
${prefix} ==> /usr/local ( )
${libdir} ==> ${prefix}/lib ( )
${includedir} ==> ${prefix}/include ( )

libqDecoder.a ==> ${libdir}/libqDecoder.a
libqDecoder.so.[n] ==> ${libdir}/libqDecoder.so.[n]
libqDecoder.so ==> ${libdir}/libqDecoder.so
qDecoder.h ==> ${includedir}/include/qDecoder.h
```

```
ex) $ ./configure --prefix=/usr
ex) $ ./configure --libdir=/home/nobreak/mylib --includedir=/home/nobreak/myinclude
```

```
) libqDecoder.so libqDecoder.so.[n] 가 n 1
가 가 6.0.1 libqDecoder.so.1
qDecoder 7.0, 8.0 가
libqDecoder.so.1
```

```
$ cd qDecoder-VERSION
```

```
$ make install
```

```
ln -s libqDecoder.so.1 libqDecoder.so
```

```
/usr/bin/install -c -m 444 qDecoder.h /usr/local/include/qDecoder.h
```

```
/usr/bin/install -c -m 444 libqDecoder.a /usr/local/lib/libqDecoder.a
```

```
/usr/bin/install -c -m 444 libqDecoder.so.1 /usr/local/lib/libqDecoder.so.1
```

```
/bin/rm -f /usr/local/lib/libqDecoder.so
```

```
ln -s /usr/local/lib/libqDecoder.so.1 /usr/local/lib/libqDecoder.so
```

```
) root .
```

```
qDecoder ``make deinstall``
```

```
.
```

```
$ make deinstall
```

```
/bin/rm -f /usr/local/include/qDecoder.h
```

```
/bin/rm -f /usr/local/lib/libqDecoder.a
```

```
/bin/rm -f /usr/local/lib/libqDecoder.so.1
```

```
/bin/rm -f /usr/local/lib/libqDecoder.so
```

examples

```
examples.html
```

```
qDecoder
```

```
Makefile
```

```
(libqDecoder.a)
```

```
(libqDecoder.so)
```

```
. examples/Makefile ``QLIB = ../src/libqDecoder.a`` ``QLIB
```

```
= ../src/libqDecoder.so``
```

```
examples
```

```
``make clean all``
```

```
. (Makefile examples
```

```
. ``make
```

```
clean all QLIB=../src/libqDecoder.so``)
```

```
$ make clean all QLIB=../src/libqDecoder.a (
```

```
)
```

```
$ ls -al *.cgi
```

```
-rwxr-xr-x 1 root power 61876 6 2 22:32 arglist.cgi
```

```
-rwxr-xr-x 1 root power 61210 6 2 22:32 fetch.cgi
```

```
-rwxr-xr-x 1 root power 61331 6 2 22:32 multivalue.cgi
```

```
-rwxr-xr-x 1 root power 61551 6 2 22:32 streamedit.cgi
```

```
-rwsr-sr-x 1 root power 61639 6 2 22:32 upload.cgi
```

```
$ make clean all QLIB=../src/libqDecoder.so (
```

```
)
```

```
$ ls -al *.cgi
```

```
-rwxr-xr-x 1 root power 12682 6 2 22:33 arglist.cgi
```

```
-rwxr-xr-x 1 root power 11560 6 2 22:33 fetch.cgi
```

```
-rwxr-xr-x 1 root power 11852 6 2 22:33 multivalue.cgi
```

```
-rwxr-xr-x 1 root power 12052 6 2 22:33 streamedit.cgi
```

```
-rwsr-sr-x 1 root power 12393 6 2 22:33 upload.cgi
```

## Microsoft Visual C++

qDecoder

, NT

가

(6.0.2)

가

Windows

가 Microsoft Visual C++

가

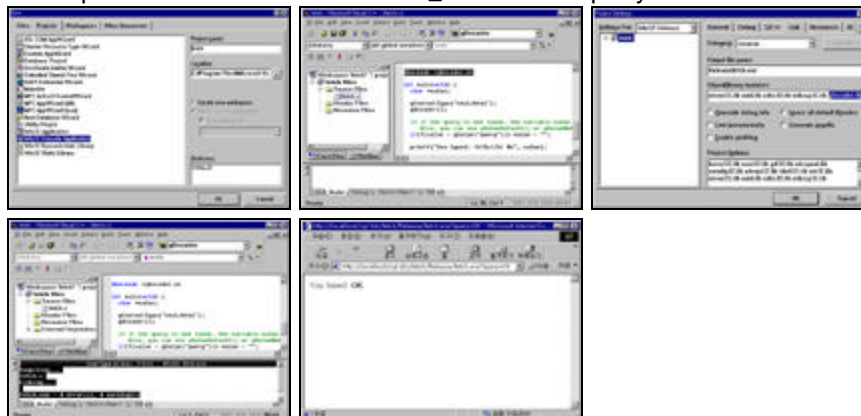
1. : :
2. : ( : WinZip)
3. :
  1. "File -> Open Workspace" win32/qDecoder.dsw
  2. "Build -> Build qDecoder.lib"

```

-----Configuration: qDecoder - Win32 Release-----
Compiling...
qDecoder.c
Creating library...

qDecoder.lib - 0 error(s), 0 warning(s)

```
4. : src/qDecoder.h win32/Release/qDecoder.lib  
 Visual C++ , (
  - ) C: \ Program Files \ Microsoft Visual Studio \ VC98 \ Lib \ qDecoder.lib
  - ) C: \ Program Files \ Microsoft Visual Studio \ VC98 \ Include \ qDecoder.h
5. :
  1. #include <qDecoder.h> #include "...PATH... \ qDecoder.h"
  2. "Project -> Setting -> Link -> Object/library modules" qDecoder.lib 가 . ( )
6. :
  1. "File -> New -> Win32 Console Application"
  2. "FileView -> Source Files -> Add Files to Folder" examples/fetch.c
  3. "Project -> Setting -> Link -> Object/library modules" qDecoder.lib 가
  4. "Build -> Build PRJ\_NAME.exe"
  5. (IIS) CGI 가 PRJ\_NAME.exe  
 . http://localhost/...PATH.../PRJ\_NAME.exe?query=OK



## qContentType()

Syntax: void qContentType(char \*mimetype);

Function: MimeType

Return:

Note:

Example:

```
qContentType("text/html"); // HTML
```

```
Mode 0: ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' '
Mode 1: ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' '
Mode 2: ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' '
Mode 3: ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' '
Mode 4: ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' '
Mode 5: ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' '
Mode 6: ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' '
Mode 10: ' ', ' ', ' ' &nbsp; ' ', ' ' &nbsp; &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; ' ' <br>
```

```

Mode 11: ' ', ' ', ' ' &nbsp; ' ', ' ' &nbsp; &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; <br>
Mode 12: ' ', ' ', ' ' &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; <br>
Mode 13: ' ', ' ', ' ' &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; <br>
Mode 14: ' ', ' ', ' ' &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; <br>
Mode 15: ' ', ' ', ' ' &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; <br>
Mode 16: ' ', ' ', ' ' &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; ' ', ' ' &nbsp; &nbsp; &nbsp; <br>

```

---

## qPuts()

Syntax: void qPuts(int mode, char \*buf);

Function:

qPuts()가 (ex: str = " ") qPrintf() buf  
qPuts()가 qPrintf() qPuts() strdup() 가 .

Note: qPuts(mode, " ");

Example:

```

char buf[100];
strcpy(buf, "http://www.hongik.com mailto:nobreak@hongik.com");
qPuts(2, buf);

char *buf;
buf = strdup("http://www.hongik.com mailto:nobreak@hongik.com");
qPuts(2, buf);
free(buf);

```

---

## qError()

Syntax: void qError(char \*format, ...);

Function: Message . printf()

Note: 1024-1 byte .

Example:

```

qError(" ");
qError("%s ", buf);

```

---

## qErrorLog()

Syntax: void qErrorLog(char \*filename);

Function: qError()

Note: , qErrorLog("logs/error.log")  
qError()가 , 'logs/error.log' 가 .

Example:

```

qErrorLog(" "); // enable log
qErrorLog(NULL); // disable log (default)

```

---

## qErrorContact()



Syntax: void qErrorContact(char \*msg);  
Function: qError()

Return:

Note:

Example:

```
qErrorContact("- Author");  
qErrorContact(NULL); // disable (default)
```

---

## qRedirect()

Syntax: void qRedirect(char \*url);

Function: HTTP Location:

Note: qRedirect HTTP qConteneType()

Example:

```
qRedirect("http://www.hongik.com/");
```

---

## qDecoder()

Syntax: int qDecoder(void);

Function: Query String linked-list

Return: , -1

Example:

```
int num;  
num = qDecoder();
```

```
application/x-www-form-urlencoded (%xx)  
multipart/form-data (File Uploading )
```

Example 1: application/x-www-form-urlencoded

[HTML] [ ]

URL Encoding  
, [C]

```
[HTML]  
<form method="post" action="input.cgi">  
  <input type="text" name="userID"><br>  
  <input type="submit">  
</form>
```

```
[ ]  
name = "userID"  
value = " 7"
```

```
[C]
#include <stdio.h>
#include "qDecoder.h"
void main(void) {
    char *id;
    qContentType("text/html");
    id = qValue("userID");
    printf("%s", id);
}
```

## Example 2: multipart/form-data

'a.gif' 128byte , [HTML] , PC

```
[HTML]
<form method="post" action="upload.cgi" enctype="multipart/form-data">
    <input type="text" name="userID"><br>
    <input type="file" name="binary"><br>
    <input type="submit">
</form>
```

```
[ ]
name = "userID"
value = "      7}"
```

```
name = "binary"
value = "a.gif 2"
name = "binary.length"
value = "128"
name = "binary.filename"
value = "a.gif"
```

```
[C]
#include <stdio.h>
#include <stdlib.h>
#include "qDecoder.h"

void main(void) {
    FILE *fp;
    char *userID;
    char *filedata, *filename;
    int filelength, i;

    qContentType("text/plain");

    userID = qValue("userID");

    filedata = qValue("binary");
    filelength = qiValue("binary.length");
    filename = qValue("binary.filename");

    fp = fopen(filename, "wb");
    for(i = filelength; i > 0; i--) fprintf(fp, "%c", *(filedata++));
    fclose(fp);

    printf("%s : %s(%s bytes) saved.", userID, filename, filelength);
}
```

HTML type=text . type=file ' .length' '

```

    .name'      가      . '      .length'      가      , '
    .name'      가
    type=text      ,
    "a.gif"      )      \      가      PC
                                . ("C: \ Data \ a.gif"
                                가
                                qPrint()      1
                                1
                                type=file      3
                                .

```

---

## qValue()

Syntax: char \*qValue(char \*format, ...);

Function: Linked-list ( ) . qDecoder()가  
qDecoder .

Return: , NULL

Note: qValue() qDecoder() qValue  
free() qFree() ( )

Example:

```

char *test;
test = qValue(" ");

char *test;
int i = 1;
test = qValue("COUNT.%d", i);

```

---

## qiValue()

Syntax: int qiValue(char \*format, ...);

Function: qValue() , ( ) .

Return: ( ) 가 0

Example:

```

int test;
test = qiValue(" ");

int test, i = 1;
test = qiValue("COUNT.%d", i);

```

---

## qValueDefault()

Syntax: char \*qValueDefault(char \*defstr, char \*format, ...);

Function: 가 qValue() .

Return: qValue() NULL defstr .

Example:

```

value = qValueDefault(" ", "COUNTRY");

```

---

## qValueNotEmpty()

Syntax: char \*qValueNotEmpty(char \*errmsg, char \*format, ...);  
 Function: 가 (") qError()  
 Return: NULL 가 qValue()  
 Example:

```
value = qValueNotEmpty(" ", "COUNTRY");
```

---

## qValueReplace()

Syntax: char \*qValueReplace(char \*mode, char \*name, char \*tokstr, char \*word);  
 Function: Linked-list  
 Return:  
 Example:

```
qValueReplace()      qStrReplace()  Wrapping
(name      linked-list  value)      ,      linked-list
가

qValueReplace()      qStrReplace()

'name'      linked-list      value

'mode'      "sr"

't' 's'가      't' [t]oken      tokstr
(      name      linked-list  value      )
,      word      's' [s]tring      tokstr
      tokstr      word

'n' 'r'      'n' [n]

ew
()      'r' [r]eplace      가      linked-list      free

'mode'      4      가

Mode "tn" : [t]oken      &
Mode "tr" : [t]oken      & linked-list
Mode "sn" : [s]tring      &
Mode "sr" : [s]tring      & linked-list
```

Example)  
 char \*retstr, \*mode;  
 mode = qValue("mode");  
 qContentType("text/plain");  
  
 printf("before %s : srcstr = %s\n", mode, qValue("srcstr"));  
 retstr = qValueReplace(mode, "srcstr", "hello", "[?]");  
 printf("after %s : srcstr = %s\n", mode, qValue("srcstr"));  
 printf(" retstr = %s\n\n", retstr);  
 if(mode[1] == 'n') free(retstr);  
 return 0;

```

Result 'tn')
  before tn : srcstr = hello world
  after  tn : srcstr = hello world
           retstr = [?][?][?][?][?] w[?]r[?]d

Result 'tr')
  before tr : srcstr = hello world
  after  tr : srcstr = [?][?][?][?][?] w[?]r[?]d
           retstr = [?][?][?][?][?] w[?]r[?]d

Result 'sn')
  before sn : srcstr = hello world
  after  sn : srcstr = hello world
           retstr = [?] world

Result 'sr')
  before sr : srcstr = hello world
  after  sr : srcstr = [?] world
           retstr = [?] world

```

---

## qValueFirst()

Syntax: char \*qValueFirst(char \*format, ...);

Function:

Return:

NULL.

Example:

```
qValueFirst("checklist");
```

---

## qValueNext()

Syntax: char \*qValueNext(void);

Function: qValueFirst()

Return:

NULL.

Example:

```

char *list;
for(list = qValueFirst("checklist"); list; list = qValueNext()) {
    printf("checklist = %s<br>\n", list);
}

```

---

## qGetFirstEntry()

Syntax: Q\_Entry \*qGetFirstEntry(void);

Function: Linked-list

Q\_Entry

. qDecoder()

linked-list

Example:

```

Q_Entry *first;
first = qGetFirstEntry();

```

---

## qPrint()

Syntax: void qPrint(void);

Function:

Example:

```
qPrint();
```

---

## qFree()

Syntax: void qFree(void);

Function: qDecoder()

Memory

Example:

```
qFree();
```

---

## (cookie)

## qSetCookie()

Syntax: void qSetCookie(char \*name, char \*value, int exp\_days, char \*path, char \*domain, char \*secure);

Function: name=value

Note: qContentType()

Example:

```
char *name = "NAME", *value = "Kim";

// NAME=Kim 30
qSetCookie(name, value, 30, NULL, NULL, NULL);

// NAME=Kim "ANYTHING.qdecoder.org" "/"
// 7
qSetCookie(name, value, 0, "/", ".qdecoder.org", NULL);
```

---

## qcDecoder()

Syntax: int qcDecoder(void);

Function: linked-list

Return: , -1

Note:

Example:

```
int num;
num = qcDecoder();
```

---

## qcValue()

Syntax: char \*qcValue(char \*format, ...);

Function: Linked-list ( )

Return: , NULL.

Note: qcDecoder()가 , .

Example:

```
char *value;  
value = qcValue(" ");
```

---

## qciValue()

Syntax: int qciValue(char \*format, ...);

Function: Linked-list ( )

Return: ( ) 가 0.

Note: qcDecoder()가

Example:

```
int value;  
value = qciValue(" ");
```

---

## qcPrint()

Syntax: void qcPrint(void);

Function: .

Example:

```
qcPrint();
```

---

## qcFree()

Syntax: void qcFree(void);

Function: qcDecoder() Memory .

Example:

```
qcFree();
```

---

## qURLencode()

Syntax: char \*qURLencode(char \*str);

Function: URL Encoding .

Return: URL Encoding . (free) 가 .

Example:

```
char *encstr;  
encstr = qURLencode("      ?");
```

---

## qURLdecode()

Syntax: char \*qURLdecode(char \*str);

Function: %xx URL Encoding

Return:

Note: str

Example:

```
char *encstr;  
qURLdecode(encstr);
```

---

## qRemoveSpace()

Syntax: char \*qRemoveSpace(char \*str);

Function: CR, LF

Return: NULL.

Note: qRemoveSpace(" ");

Example:

```
char teststr[100];  
strcpy(teststr, " Hello, world \r\n ");  
qRemoveSpace(teststr); // teststr "Hello, world"가
```

---

## qStr09AZaz()

Syntax: int qStr09AZaz(char \*str);

Function: '0' - '9', 'A' - 'Z', 'a' - 'z'

Return: 1, 0

Example:

```
if(qStr09AZaz("abc1234") == 1) printf("True");
```

---

## qStrupr()

Syntax: char \*qStrupr(char \*str);

Function:

Return:

Example:

```
char *str;  
str = strdup("Hello World");  
qStrupr(str);
```



---

## qStristr()

Syntax: char \*qStristr(char \*big, char \*small);

Function: strstr()

Return: strstr()

Example:

```
printf("%s", qStristr("Hello World", "WORLD"));
```

---

## qStricmp()

Syntax: int qStricmp(char \*s1, char \*s2);

Function: strcmp()

Return: strcmp()

Example:

```
if(!qStricmp("Hello", "HELLO")) printf("Equal");  
else printf("Differ");
```

---

## qitocomma()

Syntax: char \*qitocomma(int value);

Function:

Return:

Note: static      가      free()      qitocomma()

가

Example:

- 1) (O)  
printf("Price = %s", qitocomma(1234567));  
Price = 1,234,567
  - 2) (O)  
char a[14+1], b[14+1];  
strcpy(a, qitocomma(1234));  
strcpy(b, qitocomma(5678));  
printf("Price = %s + %s\n", a, b);  
Price = 1,234 + 5,678
  - 3) (X)  
printf("%s %s\n", qitocomma(1234), qitocomma(5678));  
Price = 1,234 + 1,234
- 

## qStrReplace()

Syntax: char \*qStrReplace(char \*mode, char \*srcstr, char \*tokstr, char \*word);

Function:

Return:  
Example:

```
'mode'      "sr"

                                't'  's'가      . 't'  [t]oken      tokstr
                                srcstr      ,      word
                                . 's'  [s]tring      tokstr
                                tokstr      word

                                'n'  'r'      . 'n'  [n]
ew
                                가
                                free()
                                srcstr
                                'r'  [r]eplace      가      (      ) [r]eplace
                                가

                                'mode'      4      가

Mode "tn" : [t]oken      &
Mode "tr" : [t]oken      & linked-list
Mode "sn" : [s]tring      &
Mode "sr" : [s]tring      & linked-list
```

```
Example)
int i;
char srcstr[256], *retstr;
char mode[4][2+1] = {"tn", "tr", "sn", "sr"};

for(i = 0; i < 4; i++) {
    strcpy(srcstr, "Welcome to the qDecoder project.");
    printf("before %s : srcstr = %s\n", mode[i], srcstr);

    retstr = qStrReplace(mode[i], srcstr, "the", "_");
    printf("after  %s : srcstr = %s\n", mode[i], srcstr);
    printf("          retstr = %s\n\n", retstr);
    if(mode[i][1] == 'n') free(retstr);
}
```

```
Result)
before tn : srcstr = Welcome to the qDecoder project.
after  tn : srcstr = Welcome to the qDecoder project.
          retstr = W_lcom_ _o __ qD_cod_r proj_c_

before tr : srcstr = Welcome to the qDecoder project.
after  tr : srcstr = W_lcom_ _o __ qD_cod_r proj_c_
          retstr = W_lcom_ _o __ qD_cod_r proj_c_

before sn : srcstr = Welcome to the qDecoder project.
after  sn : srcstr = Welcome to the qDecoder project.
          retstr = Welcome to _ qDecoder project.

before sr : srcstr = Welcome to the qDecoder project.
after  sr : srcstr = Welcome to _ qDecoder project.
          retstr = Welcome to _ qDecoder project.
```

---

## qArgMake()

```

                                     (")
.

---- Example ----
Query Input: I am a "pretty girl"
-----
      | |
      V V
---- qArgMake() ----
qlist[0] = I
qlist[1] = am
qlist[2] = a
qlist[3] = pretty girl
qlist[4] = NULL
Return: 4 (4 Tokens)
-----
      | |
      V V
---- qArgPrint() ----
'I' (1 bytes)
'am' (2 bytes)
'a' (1 bytes)
'pretty girl' (11 bytes)
-----
      | |
      V V
---- qArgMatch() ----
Target String: Hi, I'm a pretty boy. Are you pretty girl?
               = = =           =           =====
               0 0 2           2           3
Return: 3 (3 matches: qlist[0], qlist[2], qlist[3])
-----
      | |
      V V
---- qArgEmprint() ----
Target String.: Hi, I'm a pretty boy. Are you pretty girl?
Result.....: Hi, I'm a pretty boy. Are you pretty girl?
               = = =           =           =====
               1 2 3           4           5
Return: 5 (5 matches)
-----
```

Syntax: int qArgMake(char \*str, char \*\*qlist);

Function:

Return:

Note: (")

Example:

```
char *query="I am a \"pretty girl\".", *qlist[MAX_TOKENS];
int queries;
queries = qArgMake(query, qlist);
```

---

## qArgMatch()

Syntax: int qArgMatch(char \*str, char \*\*qlist);

Function:

Return: `qArgEmprint()` 1

`qArgMake()`

Example:

```
int matches;  
matches = qArgMatch("Hi, I'm a pretty boy. Are you pretty girl?", qlist);
```

---

## qArgEmprint()

Syntax: `int qArgEmprint(int mode, char *str, char **qlist);`

Function: (bold)

Return: `, qArgMatch()`

Note: mode `qPrintf()` 1

Example:

```
qArgEmprint(1, "Hi, I'm a pretty boy. Are you pretty girl?", qlist);
```

---

## qArgPrint()

Syntax: `void qArgPrint(char **qlist);`

Function:

Example:

```
qArgPrint(qlist);
```

---

## qArgFree()

Syntax: `void qArgFree(char **qlist);`

Function: qlist

Example:

```
qArgFree(qlist);
```

---

## qCheckFile()

Syntax: `int qCheckFile(char *filename);`

Function:

Return: 1, 0.

Note: Permission 가

Example:

```
if(qCheckFile("test.dat") == 0) qError("File not found");
```

---

## qCatFile()

Syntax: int qCatFile(char \*filename);

Function:

Return: , -1

Note:

Example:

```
qContentType("image/gif");
qCatFile("mypic.gif");
```

```
qContentType("text/html");
qCatFile("myhtml.html");
```

---

## qReadFile()

Syntax: char \*qReadFile(char \*filename, int &size);

Function:

Return: , NULL.

Note: qReadFile 1 ' \ 0' 가 . spsize 가 .

Example:

```
char *sp, *sp2;
int spsize;
sp = qReadFile("filename", &spsize);
sp2 = qReadFile("filename2", NULL);
...
free(sp), free(sp2);
```

---

## qSaveStr()

Syntax: int qSaveStr(char \*sp, int spsize, char \*filename, char \*mode);

Function:

Return: ( ), -1, -2

Note: mode fopen ( mode ), qSaveStr mode . umask()

Example:

```
char *sp = "To subscribe qDecoder mailing list\nSend mail to majordomo@hongik.com";
int len;
umask(0);
len = qSaveStr(sp, strlen(sp), "Howto-mailing.txt", "wt", 0644);
```

---

## qfGetLine()

Syntax: char \*qfGetLine(FILE \*fp);

Function:

Return: , NULL.

Note: 가 .

Example:

```
line = qfGetLine(fp);
```

---

## qFileSize()

Syntax: long qFileSize(char \*filename);

Function: byte

Return: , -1

Example:

```
long size;
size = qFileSize("/home/nobreak/sample.pdf");
```

---

## qfDecoder()

```
## linked-list .
---- test.conf ----
# this is comment.
name = Kim
phone = 123-4567
addr =
-----
```

Syntax: Q\_Entry \*qfDecoder(char \*filename);

Function: linked-list . ( )

Return: Linked-list , NULL.

Note: (#) .

Example:

```
Q_Entry *firstRecord;
firstRecord = qfDecoder("test.conf");
```

---

## qfValue()

Syntax: char \*qfValue(Q\_Entry \*first, char \*name);

Function: .

Return: , NULL.

Example:

```
char *value;
value = qfValue(FirstRecord, "name");
```

---

## qfiValue()

Syntax: int qfiValue(char \*format, ...);

Function:

Return: ( ) . , 가  
0

Example:

```
int counter;  
counter = qfiValue(FirstRecord, "counter");
```

---

## qfPrint()

Syntax: void qfPrint(Q\_Entry \*first);

Function:

Example:

```
qfPrint(FirstRecord);
```

---

## qfFree()

Syntax: void qfFree(Q\_Entry \*first);

Function: Memory .

Example:

```
qfFree(FirstRecord);
```

linked-list .

```
---- test.conf ----  
# this is comment.  
name = Seung-young Kim  
age = 26  
addr =  
-----
```

---

## qsDecoder()

Syntax: Q\_Entry \*qsDecoder(char \*str);

Function: linked-list . ( )

Return: Linked-list , NULL.

Note:

Example:

```
Q_Entry *FirstRecord;  
char *str="name=Seung-young Kim\nage=26\naddr="";  
FirstRecord = qsDecoder(str);
```

---

## qsValue()

Syntax: char \*qsValue(Q\_Entry \*first, char \*name);

Function:

Return: , NULL.

Note:

Example:

```
char *name;
name = qsValue(FirstRecord, "name");
```

---

## qsiValue()

Syntax: int qsiValue(char \*format, ...);

Function:

Return: ( ) , 가  
0.

Note:

Example:

```
int age;
age = qsiValue(FirstRecord, "age");
```

---

## qsPrint()

Syntax: void qsPrint(Q\_Entry \*first);

Function:

Example:

```
qsPrint(FirstRecord);
```

---

## qsFree()

Syntax: void qsFree(Q\_Entry \*first);

Function: Memory .

Return:

Note:

Example:

```
qsFree(FirstRecord);
```

---

## qReadCounter()

---



```

---- number.dat ----
74
-----

```

Syntax: int qReadCounter(char \*filename);

Function:

Return: , 0

Example:

```

int count;
count = qReadCounter("number.dat");

```

---

## qSaveCounter()

Syntax: int qSaveCounter(char \*filename, int number);

Function: ( )

Return: 1, 0

Example:

```

qSaveCounter("number.dat", 75);

```

---

## qUpdateCounter()

Syntax: int qUpdateCounter(char \*filename, int number);

Function: number 가

Return: + number, 0

Example:

```

int count;
count = qUpdateCounter("number.dat", -3);

```

---

## qAwkOpen()

```

## UNIX AWK
---- ex) /etc/passwd ----
shpark:x:1008:1000:Sang-hyun Park:/home/shpark:/bin/csh
teamwork:x:1011:1000:Seung-young Kim:/home/teamwork:/bin/csh
kikuchi:x:1015:2000:KIKUCHI:/home/kikuchi:/bin/csh
-----

```

Syntax: int qAwkOpen(char \*filename, char separator);

Function:

Return: 1, 0

Example:

```

qAwkOpen("/etc/passwd", ':');

```

---

## qAwkNext()

Syntax: int qAwkNext(char array[][256]);

Function:

Return: , -1

Note: , 256

Example:

```
char array[7][256];
qAwkOpen("/etc/passwd", ':');
for( ; qAwkNext(array) > 0; ) printf("ID=%s, Name=%s", array[0], array[5]);
qAwkClose();
```

---

## qAwkClose()

Syntax: int qAwkClose(void);

Return: 1, 0.

Function:

Example:

```
qAwkClose();
```

---

## qSedFile()

```
## UNIX SED
---- ex) streamedit.html.in ----
Hi "${NAME}" <${EMAIL}>.
<p>You got a really cool hobby.
<br>I'm sure that your hobby, ${HOBBY},
can make your life more compatible.
-----
```

Syntax: int qSedFile(char \*filename, FILE \*fpout, char \*\*arg);

Function:

Return: 1, 0

Note: Unix Sed SSI

Example:

```
qSedFile , HTML CGI
. UI , 가 ,
```

```
filename ( ) , fpout
"wt" , ,
stdout .
```

```
" + + + + + "
```

```
ex) char *arg[3 + 1] = { "s/${NAME}/Seung-young Kim/",
                          "s%${EMAIL}%nobreak@hongik.com%",
                          "s:${HOBBY}:Playing with Ji-su Hwang:",
                          NULL };
```

's' , (replacement) 1  
가 ,  
가 , '#' , 'A' ,  
가 , 가 , \${STING}

streamedit.html.in

```
ex) qSedFile("streamedit.html.in", stdout, arg);
```

```
Hi "Seung-young Kim" <nobreak@hongik.com>.
<p>You got a really cool hobby.
<br>I'm sure that your hobby, Playing with Ji-su Hwang,
can make your life more compatible.
```

SSI . ( <!--#include file="FILEPATH"--> ) SSI  
,  
, (Cascading)

```
<!--#include file="streamedit.html.in"-->
```

) include CGI가 ,  
, SSI arg NULL

```
ex) qSedFile("streamedit.html.in", stdout, NULL);
```

## qSedStr()

Syntax: int qSedStr(char \*srcstr, FILE \*fpout, char \*\*arg);

Function: qSedFile()

Return: qSedFile()

Example:

```
qSedStr("Hi my name is ${NAME}.", stdout, arg);
```

## qGetTime()

Syntax: struct tm \*qGetTime(void);

Function: tm

Return: tm

Note:

Example:

```
struct tm *mytime;  
mytime = qGetTime();
```

---

## qGetGMTime()

Syntax: time\_t qGetGMTime(char \*gmt, time\_t plus\_sec);

Function: ' +plus\_sec' GMT

Return: 1970/1/1(00:00:00) + plus\_sec

Note:

Example:

```
time_t plus_sec;  
char gmt[0xff];  
plus_sec = (time_t)300; /* 5 */  
qGetGMTime(gmt, plus_sec);  
printf("%s", gmt); // "Fri, 22-Aug-1997 15:11:30 GMT"
```

---

## qCheckEmail()

Syntax: int qCheckEmail(char \*email);

Function: E-mail

Return: 1, 0.

Note:

Example:

```
qCheckEmail("nobreak@hongik.com");
```

---

## qCheckURL()

Syntax: int qCheckURL(char \*url);

Function: URL

Return: 1, 0

Example:

```
qCheckURL("http://www.hongik.com");
```

---

## qGetEnv()

Syntax: char \*qGetEnv(char \*envname, char \*nullstr);

Function: getenv(), NULL

Example:

```
char *name;
name = qGetEnv("SCRIPT_NAME", "/cgi-bin/CrazyWWWBoard.cgi");
name = qGetEnv("SCRIPT_NAME", NULL);
```

---

## qCGIenv()

Syntax: void qCGIenv(Q\_CGIenv \*env);

Function: CGI

Example:

```
Q_CGIenv myenv;
qCGIenv(&myenv);

typedef struct Q_CGIenv Q_CGIenv;
struct Q_CGIenv{
    char *auth_type;
    char *content_length;
    char *content_type;
    char *document_root;
    char *gateway_interface;
    char *http_accept;
    char *http_accept_encoding;
    char *http_accept_language;
    char *http_connection;
    char *http_cookie;
    char *http_host;
    char *http_referer;
    char *http_user_agent;
    char *query_string;
    char *remote_addr;
    char *remote_host;
    char *remote_port;
    char *remote_user;
    char *request_method;
    char *request_uri;
    char *script_filename;
    char *script_name;
    char *server_admin;
    char *server_name;
    char *server_port;
    char *server_protocol;
    char *server_software;
    char *server_signature;
    char *unique_id;

    /* Miscellaneous Informations Supported by qDecoder */
    int year, mon, day, hour, min, sec;
};
```

---

## qCGIname()

Syntax: char \*qCGIname(void);

Function: SCRIPT\_NAME

Return:

Note:

Example:

```
char *cginame;  
cginame = qCGIname();
```

---

## qDownload()

Syntax: int qDownload(char \*filename);

Function: , 가

Return: , -1

Note: qDownloadMime() .

Example:

```
qDownload("/home/nobreak/myprg.exe");
```

---

## qDownloadMime()

Syntax: int qDownloadMime(char \*filename, char \*mime);

Function:

Return: , -1

Note: ,

. mime 'application/octet-stream' qDownload() .  
가 , 가  
qRedirect() .

Example:

```
qDownload("/home/nobreak/myprg.gif", "image/gif");
```

---

## qReset()

Syntax: void qReset(void);

Function: qDecoder .

Note: Daemon qDecoder 가  
. qReset() linked-list .

Example:

```
qReset();
```