

qDecoder On-line Reference

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qDecoder tar compress

```
$ unzip qDecoder-VERSION.tar.Z
$ tar xvf qDecoder-VERSION.tar
```

GNU Tar가

```
$ tar xvfZ qDecoder-VERSION.tar.Z
```

qDecoder-VERSION

가

가

```
$ cd qDecoder-VERSION
$ ls -asCF
total 289
 1 ./
 1 ../
 1 AUTHORS
 8 CHANGES
26 COPYING
 2 DISCLAIMER
 3 Makefile.in
48 README
128 README.pdf
55 configure*
 3 configure.in
 1 contrib/
 1 examples/
 6 install-sh*
 2 qDecoder.jpg
 1 rfc/
 1 src/
 1 win32/
```

```
AUTHORS -
CHANGES -
COPYING -
DISCLAIMER -
README -
README.pdf - PDF README
configure -
configure.in - Autoconf
contrib/... -
examples/... -
install-sh - Autoconf
qDecoder.jpg -
rfc/... - RFC
src/... - qDecoder
win32/... - Microsoft Visual C++
```

qDecoder (6.0.1)

GNU

Free/Open Source

Autoconf

가

configure make

가

, configure

Makefile

```
$ cd qDecoder-VERSION
```

```
$ ./configure
creating cache ./config.cache
checking for gcc... gcc
checking whether the C compiler (gcc ) works... yes
checking whether the C compiler (gcc ) is a cross-compiler... no
...( )...
creating Makefile
creating src/Makefile
creating examples/Makefile
creating contrib/qValue-1.0.1/Makefile
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

```

```

) ``make clean'' Makefile ``make
clean'' . ``make clean'' configure ``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 , Makefile
qDecoder .

```

```
(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 multivalued.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 multivalued.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 가
, NT 가 (6.0.2) Windows
가 Microsoft Visual C++ 가

```

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

```

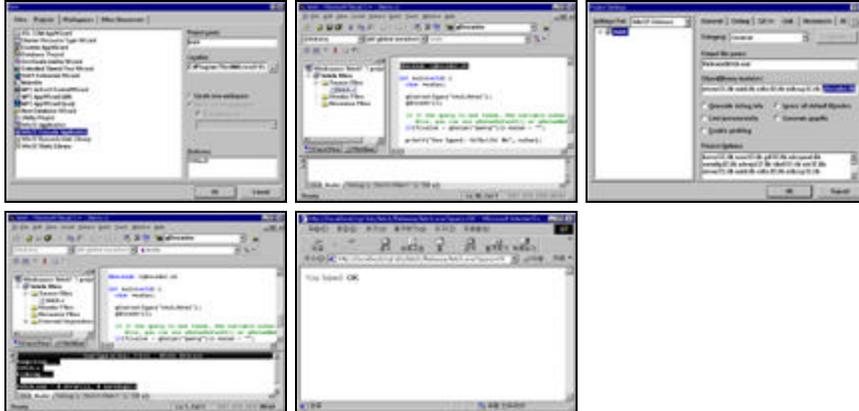
----Configuration: qDecoder - Win32 Release----
Compiling...
qDecoder.c
Creating library...

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

```
4. : src/qDecoder.h win32/Release/qDecoder.lib

Visual C++ , (가)

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

```

qPuts()

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

Function:

qPuts()가 (ex: str = " ") qPrintf() qPuts() 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: qContentType()
Note: qRedirect HTTP

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 = "가"
```

```
[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] [C] , 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 = "      7t      "

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

```

qValue()

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

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

Return: qDecoder , NULL

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

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 linked-list
(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 )
's' [s]tring tokstr
tokstr word

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

'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("check list");
```

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" "/"
//                                           7f
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
           . 'r' [r]eplace      가      free()
           가      (      srcstr      srcstr
           ) [r]eplace
           .
           '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\".";
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 가 ,
. 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      ,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();
```