

qDecoder On-line Reference

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 - qCGLenv()
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 - qDownloadMime()
-

qDecoder <http://www.qDecoder.org> <ftp://ftp.qDecoder.org/pub/qDecoder/>

qDecoder tar compress .

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

qDecoder-VERSION 가 가 .

```
$ cd qDecoder-VERSION
$ ls -asCF
total 148
```

1 ./	3 Makefile	1 examples/
1 ../	43 README	64 qDecoder.c
1 CONTACT	59 README.pdf	6 qDecoder.h
26 COPYING	1 VERSION	2 qDecoder.jpg
2 DISCLAIMER	1 contrib/	1 rfc/

CONTACT -
COPYING -
DISCLAIMER -
README -
README.pdf - PDF README
VERSION - 가
Makefile - Makefile
qDecoder.c -
qDecoder.h -
qDecoder.jpg -
contrib/... -
examples/... -
rfc/... - RFC

make 가 CC . Makefile 가 GCC
. Makefile

```
$ cd qDecoder-VERSION
$ make
gcc -I./ -Wall -c -o qDecoder.o qDecoder.c
ar -q libqDecoder.a qDecoder.o
ranlib libqDecoder.a
ld -G -o libqDecoder.so qDecoder.o
chmod 644 libqDecoder.so
```

``make``가 PATH 가
``/usr/ccs/bin/make`` .

clean" . ``make

``make install" 3 (qDecoder.h, libqDecoder.a, libqDecoder.so)
/usr/local/include, /usr/local/lib .
Makefile LIBDIR HEADERDIR

```
$ make install
ar -q libqDecoder.a qDecoder.o
ranlib libqDecoder.a
ld -G -o libqDecoder.so qDecoder.o
chmod 644 libqDecoder.so
cp qDecoder.h /usr/local/include/qDecoder.h
chmod 0444 /usr/local/include/qDecoder.h
cp libqDecoder.a /usr/local/lib/libqDecoder.a
chmod 0444 /usr/local/lib/libqDecoder.a
cp libqDecoder.so /usr/local/lib/libqDecoder.so
chmod 0444 /usr/local/lib/libqDecoder.so
```

``make deinstall" qDecoder .

examples ``make" , examples.html

```

$ cd examples/
$ make
(cd ../; make all)
ar -q libqDecoder.a qDecoder.o
ranlib libqDecoder.a
ld -G -o libqDecoder.so qDecoder.o
chmod 644 libqDecoder.so
gcc -l../ -Wall -c -o fetch.o fetch.c
gcc -l../ -Wall -o fetch.cgi fetch.o ../libqDecoder.a
gcc -l../ -Wall -c -o multivalue.o multivalue.c
gcc -l../ -Wall -o multivalue.cgi multivalue.o ../libqDecoder.a
gcc -l../ -Wall -c -o upload.o upload.c
gcc -l../ -Wall -o upload.cgi upload.o ../libqDecoder.a
chmod 6755 upload.cgi
gcc -l../ -Wall -c -o streamedit.o streamedit.c
gcc -l../ -Wall -o streamedit.cgi streamedit.o ../libqDecoder.a
gcc -l../ -Wall -c -o arglist.o arglist.c
gcc -l../ -Wall -o arglist.cgi arglist.o ../libqDecoder.a

```

```

libqDecoder.a          ``libqDecoder.so"
. examples/Makefile    ``QLIB = ../libqDecoder.a"  ``QLIB
= ../libqDecoder.so"   ``make clean all"

```

```

$ ls -al *.cgi (          libqDecoder.a          )
-rwxr-xr-x 1 qdecoder power 30986 May  8 23:12 arglist.cgi
-rwxr-xr-x 1 qdecoder power 30500 May  8 23:12 fetch.cgi
-rwxr-xr-x 1 qdecoder power 30573 May  8 23:12 multivalue.cgi
-rwxr-xr-x 1 qdecoder power 30725 May  8 23:12 streamedit.cgi
-rwsr-sr-x 1 qdecoder power 30809 May  8 23:12 upload.cgi

$ ls -al *.cgi (          libqDecoder.so          )
-rwxr-xr-x 1 qdecoder power 4597 May  8 23:11 arglist.cgi
-rwxr-xr-x 1 qdecoder power 3675 May  8 23:11 fetch.cgi
-rwxr-xr-x 1 qdecoder power 3927 May  8 23:11 multivalue.cgi
-rwxr-xr-x 1 qdecoder power 4051 May  8 23:11 streamedit.cgi
-rwsr-sr-x 1 qdecoder power 4380 May  8 23:11 upload.cgi

```

NT

qDecoder , NT 가 Visual C++ qDecoder
가 Visual C++ , Windows

1. WinZip
2. Project ``Win32 Console Application"
3. ``FileView" ``Header Files" 가 ``Add Files to Folder" qDecoder.h
4. ``Source Files' 가 qDecoder.c 가
5. examples 가 fetch.c() ``Source Files" 가 가
- 6.
7. IIS
http://localhost/...PATH.../fetch.exe?query=OK
8. fetch.c

가 C , OOP CPP
qDecoder C plus plus ,
qDecoder.c

qContentType()

Syntax: void qContentType(char *mimetype);

Function: MimeType

Return:

Note:

Example:

```
qContentType("text/html"); // HTML
qContentType("image/gif"); // GIF
```

qPrintf()

Syntax: int qPrintf(int mode, char *format, ...);

Function: printf() HTML TAG Link

Return: bytes , EOF

Note: 가 10K(1024 * 10 - 1)

Example:

```
Mode 0 : printf() , HTML
Mode 1 : HTML TAG Link
Mode 2 : Mode 1 + link
Mode 3 : Mode 2 + link (target=_top)
Mode 4 : HTML TAG
Mode 5 : Mode 4 + Link
Mode 6 : Mode 5 + link (target=_top)
Mode 10 : Mode 0 + Convert
Mode 11 : Print HTML TAG + Convert
Mode 12 : Mode 11 + Auto Link
Mode 13 : Mode 12 + Auto Link to _top frame
Mode 14 : Waste HTML TAG + Convert
Mode 15 : Mode 14 + Auto Link
Mode 16 : Mode 15 + Auto Link to _top frame
```

```
Convert : " " -> " "
          " " -> " &nbsp;"
          " " -> " &nbsp;&nbsp;"
          "\r" ->
          "\n" -> "<br>\n"
```

```
10 Mode <pre>
```

```
qPrintf(i, "Mode %d: <font>\\"http://www.hongik.com\\"</font>\n", i);
```

```
Mode 0: <font>"http://www.hongik.com"</font>
Mode 1: &lt;font&gt;&quot;http://www.hongik.com&quot;&lt;/font&gt;
Mode 2: &lt;font&gt;&quot;<a href="http://www.hongik.com" target="">http://www.hongik.com</a>&quot;
Mode 3: &lt;font&gt;&quot;<a href="http://www.hongik.com" target="_top">http://www.hongik.com</a>&quot;
Mode 4: &quot;http://www.hongik.com&quot;
Mode 5: &quot;<a href="http://www.hongik.com" target="">http://www.hongik.com</a>&quot;
Mode 6: &quot;<a href="http://www.hongik.com" target="_top">http://www.hongik.com</a>&quot;
Mode 10: <font>"http://www.hongik.com"</font><br>
Mode 11: &lt;font&gt;&quot;http://www.hongik.com&quot;&lt;/font&gt;<br>
Mode 12: &lt;font&gt;&quot;<a href="http://www.hongik.com" target="">http://www.hongik.com</a>&quot;
Mode 13: &lt;font&gt;&quot;<a href="http://www.hongik.com" target="_top">http://www.hongik.com</a>&quot;
Mode 14: &quot;http://www.hongik.com&quot;<br>
Mode 15: &quot;<a href="http://www.hongik.com" target="">http://www.hongik.com</a>&quot;<br>
Mode 16: &quot;<a href="http://www.hongik.com" target="_top">http://www.hongik.com</a>&quot;<br>
```

```
qPrintf(i, "Mode %d: ' ', ' ', ' ', ' ', ' '\n", i);
```

```
Mode 0: ' ', ' ', ' ', ' ', ' ', ' '
Mode 1: ' ', ' ', ' ', ' ', ' ', ' '
```

qPuts()

Example:

qError()

Example:

qErrorLog()

Example:

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 `qContentType()` ,
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

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

```
[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 = "      가      "
```

```
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
,      type=text      ,      가     
("C: \ Data \ a.gif"      "a.gif"      )      type=file      3
가      1      1
```

qPrint()

qValue()

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

Function: Linked List () . qDecoder()가

Return: qDecoder , NULL

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

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");
```

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
qSetCookie(name, value, 30, NULL, NULL, NULL);

// NAME=Kim "ANYTHING.qdecoder.org" "/"
// 가
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

Note:

Example:

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

qStrupr()

Syntax: char *qStrupr(char *str);
Function: .
Return:

qStristr()

Syntax: char *qStristr(char *big, char *small);
Function: strstr() ,
Return: strstr()

qStricmp()

Syntax: int qStricmp(char *s1, char *s2);
Function: strcmp() ,
Return: strcmp()

qitocomma()

Syntax: char *qitocomma(int value);
Function: .
Return: .
Note: static , qitocomma()가
Example:

```
printf("Price = %s", qitocomma(1234567));  
Price = 1,234,567
```

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:

1, qArgEmprint()
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: Frees the list of arguments qlist.

Example:

```
qArgFree(qlist);
```

qCheckFile()

Syntax: int qCheckFile(char *filename);

Function: Checks if the file filename exists.

Return: 1, if the file exists; 0, otherwise.

Note: Permission errors are not checked.

Example:

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

qCatFile()

Syntax: int qCatFile(char *filename);

Function: Appends the contents of filename to the current file.

Return: 1, if successful; -1, otherwise.

Note:

Example:

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

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

qReadFile()

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

Function:

Return: A pointer to a string of size size, or NULL.

Note: qReadFile returns a pointer to a string of size size, or NULL. The string is terminated by a null character '\0'. The string is not null-terminated if size is 0.

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

Note:

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

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: void qAwkClose(void);

Function:

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
              ,      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
                        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);
```

qCGLenv()

Syntax: void qCGLenv(Q_CGLenv *env);

Function: CGI

Example:

```
Q_CGLenv myenv;
qCGLenv(&myenv);

typedef struct Q_CGLenv Q_CGLenv;
struct Q_CGLenv{
    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
qRedirect()
.

Example:

```

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

```