

# Q-Light

## Ethernet(tcp/ip) Library

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Ethernet (tcp/ip) Library

## 1. Function Reference

참조1) Qu\_type(0-4)    Lamp type

1. 음의 종류가 5가지인 제품시

Qu\_type = 0

2 : 음의 종류가 25가지인 제품일시 음의 그룹선택

Qu\_type    0-WS,1-WP,2-WM,3-WA,4-WB

### Tcp\_Qu\_RW

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prototype    | bool Tcp_Qu_RW(int iPort, byte *pblp, byte *pbData)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Header file  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Parameter    | <p>iPort : tcp/ip Port</p> <p>pblp : ip address pointer<br/>ex) pblp[0]=192; pblp[1]=168; pblp[2]=10; pblp[3]=200;</p> <p>pbData : Send data pointer</p> <p>pbData[0]    -&gt; 0-read, 1-write</p> <p>pbData[1]    -&gt; type</p> <p>음5가지 모델    (0)</p> <p>음25가지 모델 음의 그룹선택(0-4)</p> <p>pbData [2] ~ pbData [6] : Lamp Control data(0-2)</p> <p>0-OFF, 1-blink(on/off). 2-ON, Else -Don't change before state</p> <p>pbData [2] - Red Lamp</p> <p>pbData [3] - Yellow Lamp</p> <p>pbData [4] - Green Lamp</p> <p>pbData [5] - Blue Lamp</p> <p>pbData [6] - White Lamp</p> <p>pbData [7] - : Sound Contro data(0-5)</p> <p>0-OFF, 1-5(Sound Select), Else- Don't change before state</p> |
| Return value | <p>1 : 쓰기 성공</p> <p>0 : 쓰기 실패</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Description  | <p>pbData[1] ~ [7]    : Lamp 현재상태값 리턴 포인트</p> <p>Read 시에는 pbData포인터위치(송신시와동일)에 현재상태를 리턴.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## . How to use Library

※본 라이브러리는 Windows XP에서 Microsoft Visual C++ 6.0으로 작성되었습니다

### 4-1. Visual C++

- Qtvc\_dll.lib, Qtvc\_dll.dll 파일을 메인소스가 위치한 디렉토리에 위치시킵니다.
- 프로젝트속성(alt+f7)에서 구성속성 -> 링커 -> 입력에 있는 추가종속성 항목에 Qtvc\_dll.lib를 추가시킵니다. ( VC++6.0 기준 )  
Menu -> Project -> Setting(alt\_F7) -> Link -> category[input] -> Object/library modules[Qtv\_dll.lib]            add
- 응용프로그램을 작성하고 빌드 후 Quvc\_dll.dll 파일을 실행파일과 같이 위치시켜야 실행이 가능합니다.
- Microsoft Visual VC++6.0 에서 작성한 응용프로그램 샘플 소스를 첨부합니다 .  
본 문서와 함께 참고하시기 바랍니다.

Cf) CLampTestDlg 로 작성될시

```
extern "C" __declspec(dllimport) bool Tcp_Qu_RW(int iPort, byte *pblp, byte *pbData);
```

```
void CLampTestDlg::OnButton_RD ()
{
    // TODO: Add your control notification handler code here
    int i;

    bool b_chk;
    byte c_pldata[15];
    byte c_plpadd[4];
    int            iPort;

    c_pldata[0] = 0;            // 1-write  0-read

    c_plpadd[0] = 192;
    c_plpadd[1] = 168;
```

```
c_plpadd[2] = 10;  
c_plpadd[3] = 200;
```

```
iPort = 20000;
```

```
b_chk = Tcp_Qu_RW(iPort,c_plpadd,c_pldata);
```

```
m_str = " ";
```

```
if(b_chk) {
```

```
    if(c_pldata[2] == 0 )      m_str += " R-OFF/";  
    else if(c_pldata[2] == 1 ) m_str += " R-ON/";  
    else                       m_str += " R-BLINK/";
```

```
    if(c_pldata[3] == 0 )      m_str += " Y-OFF/";  
    else if(c_pldata[3] == 1 ) m_str += " Y-ON/";  
    else                       m_str += " Y-BLINK/";
```

```
    if(c_pldata[7] == 0 )      m_str += " Sound-OFF/";  
    else                       m_str += " Sound-ON/";
```

```
}
```

```
else      m_str = " [Send Error] ";
```

```
UpdateData(0);
```

```
}
```

```
void CLampTestDlg::OnButton_WR ()
```

```
{
```

```
    // TODO: Add your control notification handler code here
```

```

#define   D_not           100           // Don't care  // Do not change
        before state
#define   C_lampoff       0
#define   C_lampon        1
#define   C_lampblink2

```

```

bool b_chk;
byte c_pldata[15];
byte c_plpadd[4];
int      iPort;

```

```

c_pldata[0] = 1;           // 1-write  0-read
//Sound 5ea model
c_pldata[1] = 0;
//sound 25ea model group select  0-4:
//c_pldata[1] = 3;

```

```

c_pldata[2] = C_lampon;    // lamp1 RED
c_pldata[3] = C_lampblink; // lamp2 Yellow
c_pldata[4] = C_lampoff;   // lamp3 Green
c_pldata[5] = D_not;       // lamp4 Blue
c_pldata[6] = C_lampoff;   // lamp4 White
c_pldata[7] = 3;           // sound

```

```

c_plpadd[0] = 192;
c_plpadd[1] = 168;
c_plpadd[2] = 10;
c_plpadd[3] = 200;

```

```

iPort = 20000;

b_chk = Tcp_Qu_RW(iPort,c_plpadd,c_pldata);

if(b_chk)    m_str = "  [Success send] ";
else        m_str = "  [Send  Error] ";
UpdateData(0);

}

```

## 4-2. Visual Basic

※ Microsoft Visual VB++6.0 에서 작성한 응용프로그램 샘플 소스를 첨부합니다 .  
본 문서와 함께 참고하시기 바랍니다.

Qtvb\_dll.lib,Qtvb\_dll.dll 은 실행 파일이 생성되는 곳에 복사합니다.

```

Public Declare Function Tcp_Qu_RW Lib "Qtvb_dll.dll" Alias "_Tcp_Qu_RW@12"
    (ByVal iPort As Integer, ByRef pblp As Byte, ByRef pbData As Byte) As Boolean

```

```

Private Sub Lamp_write_Click()

```

```

    Const C_index = 0

```

```

    Const C_type = 0

```

```

    Const D_not = 100          ' Don't care  // Do not change before state

```

```

    Const C_lampoff = 0

```

```

    Const C_lampon = 1

```

```

    Const C_lampblink = 2

```

```

    Dim b_in As Boolean

```

```
Dim b_vb As Boolean
```

```
Dim iPort As Integer
```

```
Dim bData(15) As Byte
```

```
Dim blpAdd(4) As Byte
```

```
'----- control data
```

```
bData(0) = 1          '1-write 0-read
```

```
'type sound 5ea Model
```

```
bData(1) = 0
```

```
'type sound 25ea model Group Select
```

```
'bData(1) = 3
```

```
bData(2) = C_lampon          ' Red
```

```
bData(3) = C_lampblink       ' Yellow
```

```
bData(4) = D_not             ' Green
```

```
bData(5) = C_lampon          ' Blue
```

```
bData(6) = C_lampblink       ' White
```

```
' Sound      0-(off) 1-4(Sound select)
```

```
' Else ' Don't care Do not change before state
```

```
bData(7) = 2
```

```
'----- dest ip and port
```

```
blpAdd(0) = 192
```

```
blpAdd(1) = 168
```

```
blpAdd(2) = 10
```

```
blpAdd(3) = 200
```

```
iPort = 20000
```

```
b_in = Tcp_Qu_RW(iPort, blpAdd(0), bData(0))
```

```

'b_in = Usb_Qu_write(0, 0, bData(0))

If b_in = 0 Then
    b_vb = False
Else
    b_vb = True
End If

If b_vb = True Then
    Text1.Text = " Send Success"
Else
    Text1.Text = " Send Error"
End If

'Text1.Text = b_in

End Sub

Private Sub Read_state_Click()
    Dim i As Long
    Dim mstr As String
    Dim b_in As Boolean
    Dim b_vb As Boolean

    Dim iPort As Integer

    Dim bData(15) As Byte
    Dim blpAdd(4) As Byte

    '----- control data
    bData(0) = 0          '1-write  0-read
    bData(1) = 0          ' type

```

'----- dest ip and port

bIpAdd(0) = 192

bIpAdd(1) = 168

bIpAdd(2) = 10

bIpAdd(3) = 200

iPort = 20000

b\_in = Tcp\_Qu\_RW(iPort, bIpAdd(0), bData(0))

If b\_in = 0 Then

    b\_vb = False

Else

    b\_vb = True

End If

mstr = " "

If b\_vb = True Then

    If bData(2) = 0 Then

        mstr = mstr + "R-OFF/"

    Elseif bData(2) = 1 Then

        mstr = mstr + "R-ON/"

    Else

        mstr = mstr + "R-BLINK/"

End If

    If bData(3) = 0 Then

        mstr = mstr + "Y-OFF/"

    Elseif bData(3) = 1 Then

        mstr = mstr + "Y-ON/"

    Else

        mstr = mstr + "Y-BLINK/"

End If

```
If bData(7) = 0 Then
    mstr = mstr + "Sound-OFF/"
Else
    mstr = mstr + "Sound-ON/"
End If
```

```
Else
    mstr = "Connect error"
End If
```

```
Text1.Text = mstr
```

```
End Sub
```

## 5. Contact Us

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