![Tixi logo - Always online. Even offline.]

Tixi HSM + E-Terminal
and Mitsubishi FX Remote Access

QI-MMHMI-EN, V1.2
May 04, 2009

1 Test report

The HMI has two COM-Ports (1xRS232, 1xRS422).
It is able to forward data from COM1 to COM2 (transparent mode), even by translating data formats (e.g. 8N1 to 7E1, same as Tixi Alarm Modem does).

If HMI transparent mode is active all data will be automatically forwarded from COM1 to COM2.

The HMI programming always requires 8N1 data format !

There are two ways to get remote communication to the HMI:

- **Direct access, PSTN only**
  Access to HMI using "E-Designer" or "FileTransfer".
  Access to FX using GX IEC Developer.
  Access to HMI Webserver or FTP: not possible (no TCP/IP communication)

  The connection will be established using the "HMI Tools" (Connect) program. To get programming access to the HMI both modems must support the "COM Break" feature.

  See Beijer Startup documents: KI00226, KI00110A

- **PPP-Access, PSTN, ISDN, GSM**
  Access to HMI using "E-Designer", "FTP" or "Webserver"
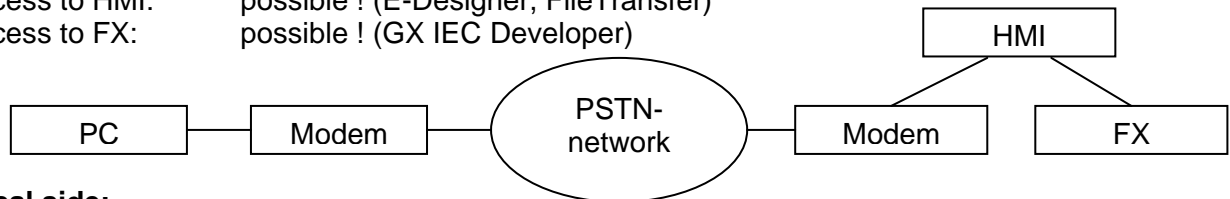 Access to FX using GX IEC Developer via "Virtual Serial Port"

  The connection will be established using the windows dialup network (PPP). Communication is done via TCP/IP.

  See Beijer Startup documents: KI00223, KI00225

2 Setup recommendations (tested):

2.1 PSTN modem remote access (direct access)

Access to HMI: possible ! (E-Designer, FileTransfer)
Access to FX: possible ! (GX IEC Developer)

Local side:
Modem:
Tixi HSM: `AT%C0"H0&D0&W+TFORMAT="8X1"`
GX Developer setting: 9600/**8N1**
E-Designer Setting: Modem transfer 9600/**8N1**

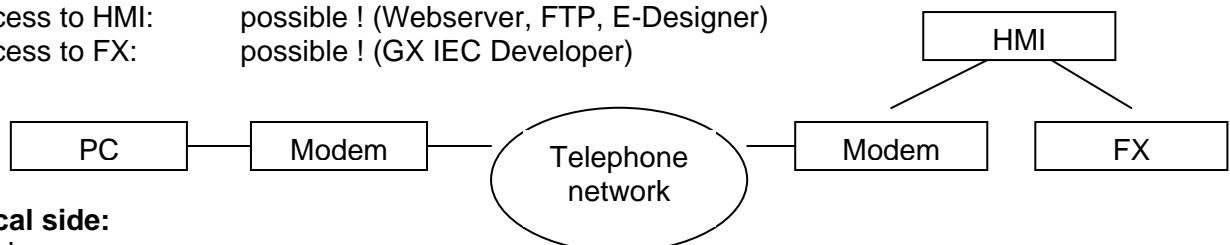**Remote side:**
Modem: connected to HMI Port 1 (9600/8N1)
Tixi HSM: `AT%C0"H0E0Q1V1S0=2&D0&K0&W+TFORMAT="8N1";+TBAUD="9600"`
FX connected to HMI Port 2
FX serial port setting: 9600/**7E1**

2.2 Modem remote access (PPP access)

Access to HMI: possible ! (Webserver, FTP, E-Designer)
Access to FX: possible ! (GX IEC Developer)

Local side:
Modem:
Any Windows TAPI modem for ISDN, GSM, PSTN (57600/8N1)
GX Developer setting: 9600/**8N1**, Virtual Serial Port necessary http://www.tibbo.com/
E-Designer Setting: TCP/IP transfer

Remote side:
Modem: connected to HMI Port 1 (57600/8N1)
Tixi HSM: `AT%C0"H0E0Q1V1S0=2&D0&K0&W+TFORMAT="8N1";+TBAUD="57600"`
Tixi HNG: `AT +IFC=0,0; &D0 E0 Q1 S0=1 +CICB=0 &W`
Tixi SD03: `AT &D0 &K0 E0 Q1 S0=1 B3 &W +TFORMAT="8N1"; +TBAUD="57600"`
FX connected to HMI Port 2
FX serial port setting: 9600/**7E1**

If the Modem is controlled by the HMI (PPP-Settings, Modem "on") different init strings are necessary:
Tixi HSM: `AT&F` (Factory defaults)
Tixi HNG: `AT &F +WRIM=1; &W`
Tixi SD03: `AT&F B3 &W`