

Program

ComToUdp

Version

1.0

Synopsis

comtoudp [iniFile]

Description

ComToUdp is a utility program which receives NMXP data packets via a serial port, and forwards them to NaqsServer via UDP. It will also receive command messages (retransmission request and calibration commands) from NaqsServer via UDP, and forward them via the serial port. It is intended for use in small acquisition systems comprising a single digitizer with one acquisition computer.

Options

infile the path to the ComToUdp configuration file. If no *infile* parameter is specified, ComToUdp looks for a file called ComToUdp.ini in its working directory. The format of the configuration file is described below.

Running ComToUdp

Starting ComToUdp

To start ComToUdp from the command line, type

ComToUdp or **ComToUdp *infile***

where *infile* is the path to the ComToUdp configuration file.

Starting ComToUdp From Watchdog

ComToUdp may be automatically started and monitored by the Nanometrics watchdog program by adding the following entry to your watchdog.ini file:

[WatchEntry]

ProgramTitle = ComToUdp

ExitAction = Restart

PingsSemaphore = true

StartDelay = 6s

SessionType = Default

ScreenDisplay = Default

InitXPos = 0

InitYPos = 0

InitXSize = 0

InitYSize = 0

ProgramPathname = "java -cp c:\nmx\bin\ComToUdp.jar ComToUdp [infile]"

WorkingDirectory = "c:\nmx\user"

Stopping ComToUdp

It is important that ComToUdp be shutdown properly in order for the application to release its system resources. To stop ComToUdp properly, type

quit <enter>

in the ComToUdp command window.

Definition of Inifile Parameters

The ComToUdp configuration file contains the following three sections:

[NetworkInterface]

This section defines the UDP connection to NaqsServer.

Host = 224.1.11.3

Definition: the IP address to which incoming packets should be forwarded. This should be either the IP address of the Naqs machine, or a multicast address to which NaqsServer subscribes.

Port = 1213

Definition: the UDP port to which incoming packets should be forwarded. This should be the same as the port on which NaqsServer receives packets.

LocalPort = 0

Definition: the UDP port used to receive command packets from NaqsServer. This may usually be set to zero; the system will then assign an arbitrary available port number.

[SerialInterface]

This section defines the configuration of the serial port on which packets are to be received.

Port = COM1

Definition: the serial port on which packets are to be received (COM1 ... COM12).

Baud = 38400

Definition: the baud rate of the incoming data. This should be set equal to the baud rate setting on the digitizer.

Scrambled = No

Definition: indicates if serial data are scrambled for transmission. Data are usually scrambled when sent via radio. This setting should be the same as the corresponding setting on the digitizer.

MaxPacketLength = 300

Definition: the maximum length in bytes of packets carried on the serial line. ComToUdp will receive packets of any length up to this maximum; packets need not all be the same length. For most efficient operation and quickest recovery after transmission errors, this should be set equal to the length of the longest packet expected from the digitizer.

[Log]

This section defines the location, name and verbosity of the ComToUdp log file.

LogFilename = ComToUdp.log

Definition: the name of the ComToUdp log file.

LogDirectory = logs

Definition: Pathname for the directory in which to store the ComToUdp log file. This should NOT include the trailing slash.

Verbosity = Debug

Definition: The startup verbosity of the ComToUdp log file
(DEBUG, VERBOSE or INFO). Normal value is INFO.

Example of Inifile

```
// ComToUdp.ini
// Config file for the ComToUdp program
// Modified November 20, 2000
```

```
[ NetworkInterface ]
```

```
Host = 224.3.11.1
```

```
Port = 32000
```

```
LocalPort = 0
```

```
[ SerialInterface ]
```

```
Port = COM1
```

```
Baud = 38400
```

```
Scrambled = No
```

```
MaxPacketLength = 300
```

```
[ Log ]
```

```
LogFilename = ComToUdp.log
```

```
LogDirectory = logs
```

```
Verbosity = Debug
```

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ComToUdp.lwp

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