



Mega_Messenger

Stand Alone SMS Text Messenger

CCL7600-8Dx

Quick Start Manual

Issue	Date	Revision
1	06/05/14	

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As part of our policy of continuous improvement we would welcome any suggestions for changes to the document.

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SAFETY CONSIDERATIONS

Mega_Messenger and all associated parts conform with EC Directive 2006/95/EC (LVD Directive) and are certified to comply with BS EN 60950-1:2006 + A12:2011. However, the performance is dependent on some aspects of the way in which it is installed and operated:

All plant I/O is from unknown sources so could potentially be a source of unsafe voltages.

EMC CONSIDERATIONS

Mega_Messenger and all associated parts conform with EC Directive 1999/5/EC (R&TTE Directive) and are certified to comply with ETSI EN 300 220-2 V2.4.1 (2012-05), ERC/REC 70-03, ERC/DEC/(01)04.

1. Any equipment that could be a source of high level electrical interference should not be located near to **Mega_Messenger**. Examples include high power switchgear, switched mode power supplies and cameras used for flash photography.



1 Introduction

Mega_Messenger is a stand-alone unit that delivers messages via SMS text messaging and provides status reports when interrogated.

It has 8 digital inputs, and the user can configure exception messages to be sent when each input closes or opens. A typical exception message could be:

```
Tue 06/05/14 13:50:49
Tower Hill:
Intruder Alarm activated
```

The user can configure a directory of up to 15 numbers to which exception reports will be sent. Any land line numbers will receive spoken messages.

Any user whose number is in the directory can interrogate **Mega_Messenger** at any time by sending the command message 'Status'. The typical response might be:

```
Tue 06/05/14 13:50:49
Tower Hill:
High Level Alarm OK
Low Level Alarm Tripped
Mains Power OK
Intruder Alarm activated
Main Pump Running
```

Any message received from a number that is not in the directory (or any invalid command message received from a number that is in the directory) will be forwarded to the first number listed in the directory. This will include any messages from the service provider (e.g. Vodafone). The message received could typically be:

```
Tue 06/05/14 13:50:49
Tower Hill:
SMS received from +447976221435
Your account has had an auto top-up of
£10.00. Your new balance is £12.74
```

Mega_Messenger will work with any SIM card that has text messaging enabled. If a Pay-As-You-Go SIM is used we would strongly recommend arranging it to be automatically topped-up to ensure that it never runs out of credit.

2 Configuration

2.1 System Requirements

Mega_Messenger is configured via a PC using DUCX software, which can be downloaded from the disc provided or from our website www.churchill-controls.co.uk. Note that it requires DUCX version 1.0.11 or later. See page 12 for instructions on installing DUCX.

DUCX can be used for configuring a variety of different products. When used to configure **Mega_Messenger** many of the features are not used, so should be left at the default values.

DUCX allows a user to create a new configuration, read a configuration from disc, upload the configuration from **Mega_Messenger**, edit the configuration, save the configuration to disc and download the configuration to **Mega_Messenger**.

2.2 Station Name

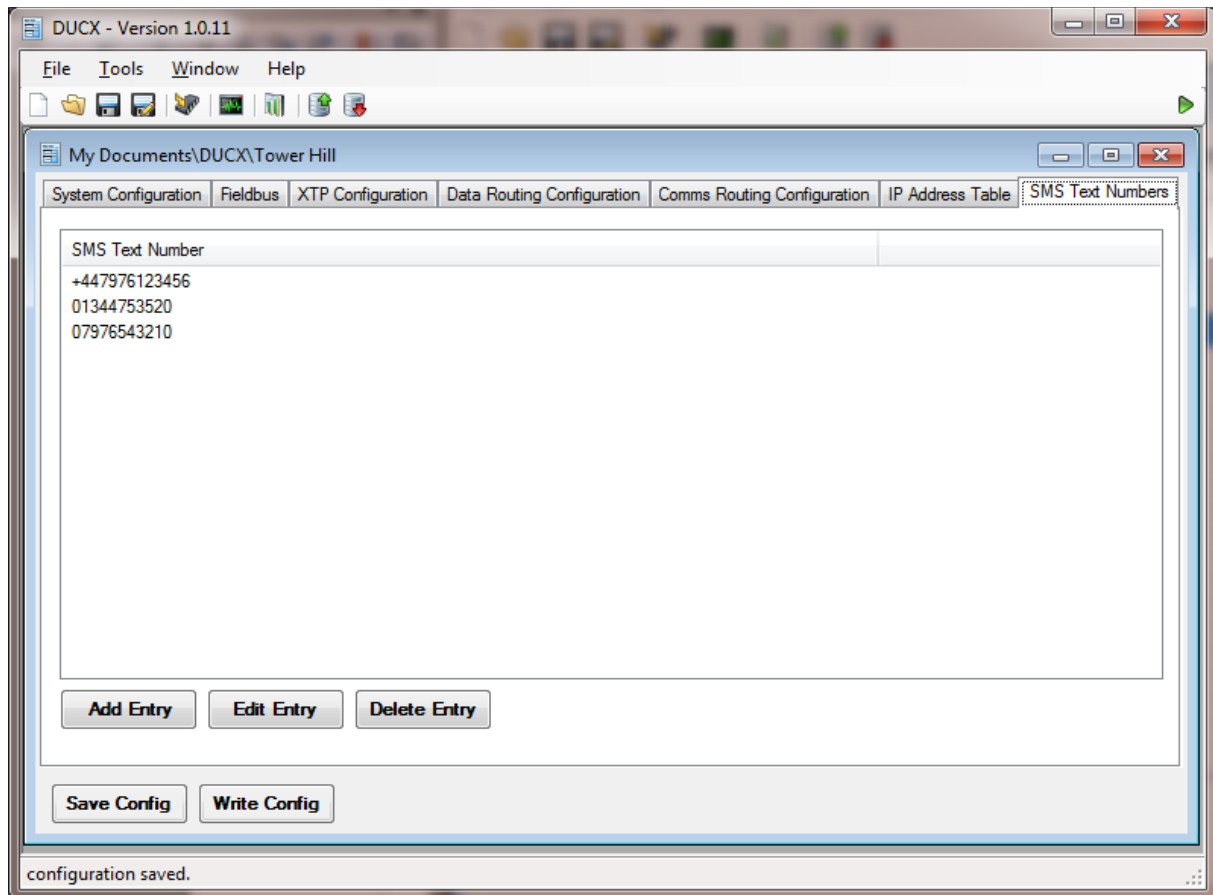
Every message sent from **Mega_Messenger** is prefixed with the heading:

Time/Date
Station Name

When a new configuration is created via DUCX it will be given a default name 'Configuration'. Before downloading it to **Mega_Messenger** it should be saved using a sensible file name. This will be the Station Name that will be allocated to **Mega_Messenger**.

2.3 SMS Text Numbers

The first stage of configuring *Mega_Messenger* is to define the telephone numbers to which messages are to be sent. This is done through the *SMS Text Numbers* tab in DUCX:



The numbers in this table define where exception reports will be sent, and also the telephone numbers of the users who are authorised to send command messages.

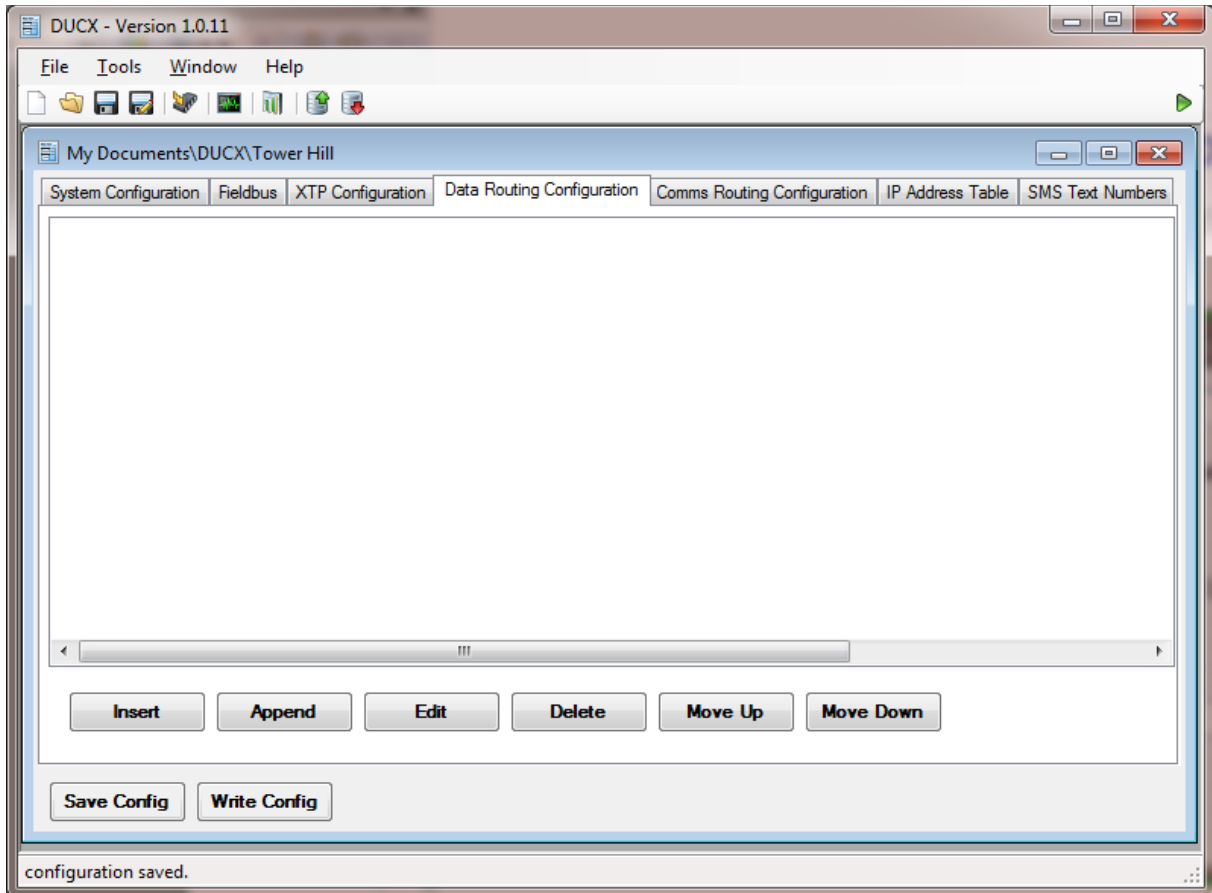
Note the following:

1. Any message received from a number that is not listed in the table (or any invalid command message received from a number that is in the directory) will be forwarded to the first number in the table
2. Numbers from which commands are required to be sent must precisely match the number reported by the network provider. In many cases the network provider will replace the leading '0' with the country code, as illustrated by the difference between the first and third lines in the table above. If a user sends a command message from number 07976543210 *Mega_Messenger* might forward the message to the first number (i.e. +447976123456) reporting that it had been received from number +44797654321. This can be fixed by modifying the entry in the table.
3. The table can include land-line numbers, as illustrated in the second line. The network provider will convert the message to speech and deliver it to the relevant number.

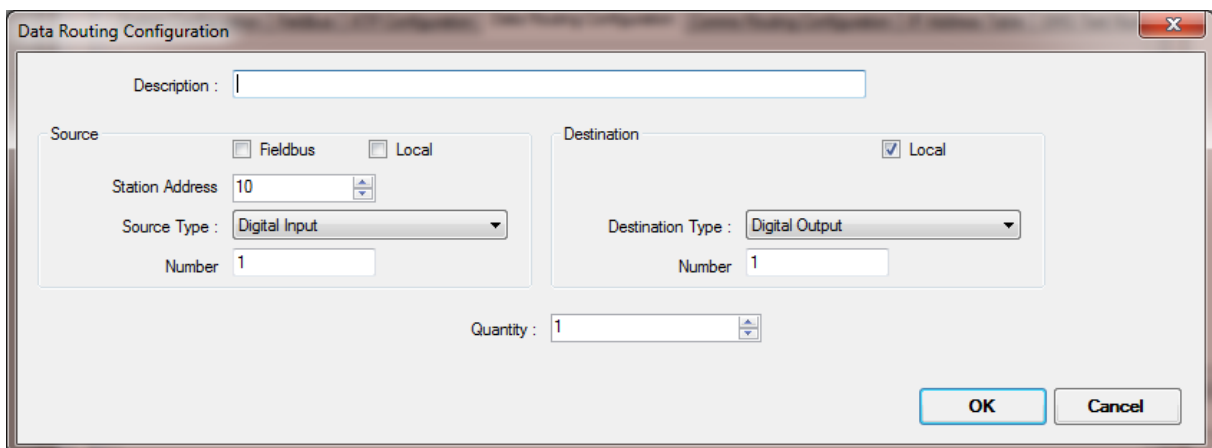
Up to 15 different numbers can be configured.

2.4 Configuring Digital Inputs

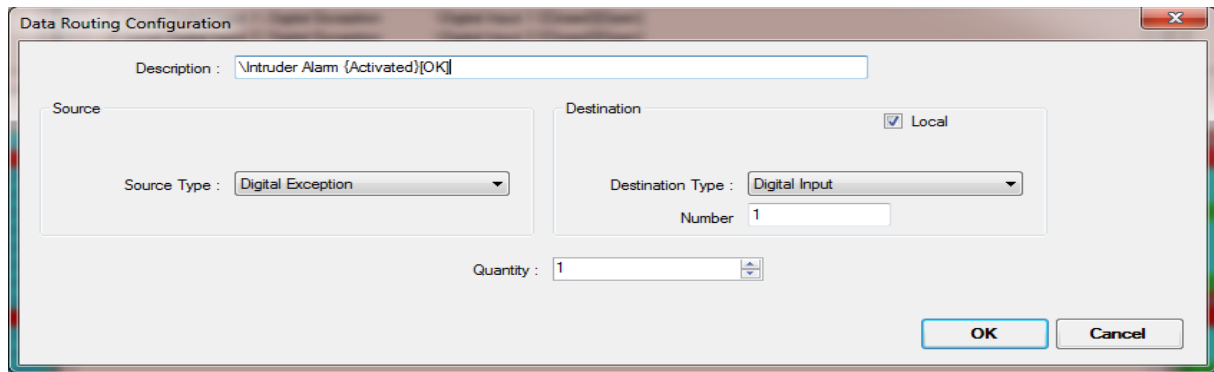
The text sent when a digital changes state is defined in the *Data Routing* tab. When a new configuration is started the table will be clear:



Clicking Insert or Append opens a data entry form:



To configure exception reporting the default values should be changed as follows:



Description:

The text must start with the character '\\' to define it as SMS text. Any text enclosed by curly brackets { } will only be included if the relevant input contact closes. Any text enclosed by square brackets [] will only be included if the relevant input contact opens.

Curly = Closed, Square = Open

Note that alarm flags are fail safe, so are treated as being being closed when OK, open on fault. For example, the text associated with a Battery Low alarm could be "Standby Battery [Low]{OK}".

Source Type

Must be set to Digital Exception

Destination

Local must be ticked

Destination Type

The only types that can be selected are Battery Low Alarm and Digital Input

Number

This will only be displayed if Destination Type is Digital Input, and allows the user to select which of the 8 digital inputs is being defined

Quantity

This will only be displayed if Destination Type is Digital Input, and should be set to 1.

3 Command Messages

3.1 Requesting System Status

A request for the system status report can be sent from any number in the directory by sending a text message "Status" to *Mega_Messenger*. See section 1 for a typical report format.

4 Installation

4.1 I/O and Power Connections

The Digital Input and power connections are via a two-part connectors so the equipment can be readily removed or replaced without exposing the wiring.

4.1.1 Power

Power is connected to the orange connector, which has an adjacent ON/OFF switch.

The operating voltage is determined from the suffix number applied to the unit:

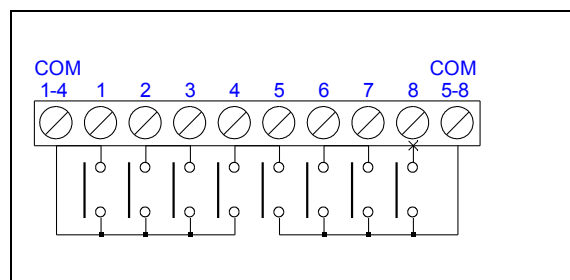
7600-8D1 = 12V DC. Correct polarity must be observed.

7600-8D2 = 24V AC/DC

7600-8DA = 110/240V AC (Note this power supply must be removed to access the SIM card)

4.1.2 Digital Inputs

There are eight digital inputs, in two groups of four. Each group shares a common return terminal which is connected to the system 0V rail. The inputs are designed for operation from volt-free contacts



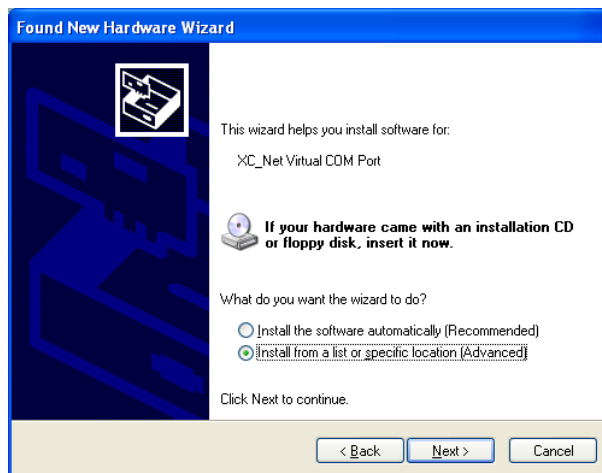
Appendix 1 - DUCX & USB Driver Installation

The following instructions include illustrations from Windows XP, other versions will give slightly different displays:

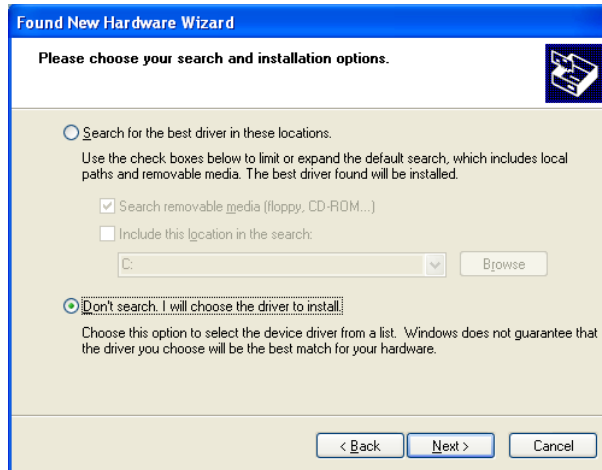
1. Install the CD, or download the software to a known directory and navigate to it.
2. Run setup.exe to install DUCX. During the installation process you will be prompted to select the folder in which you wish to install DUCX. Select the default (Churchill Controls/DUCX) unless there is a reason for installing it elsewhere. When the installation is complete there will be a DUCX short-cut icon on the desktop and an appropriate entry in Start/Programs.
3. Power a **Mega_Link** and connect it to the PC via an USB cable. Windows will recognise it and



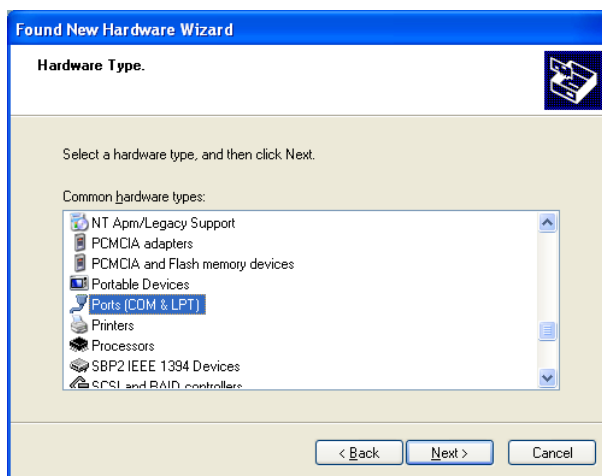
open the following window:
Select "No, not this time". Click Next.



4. Select "Install from a list or specific location". Click Next.



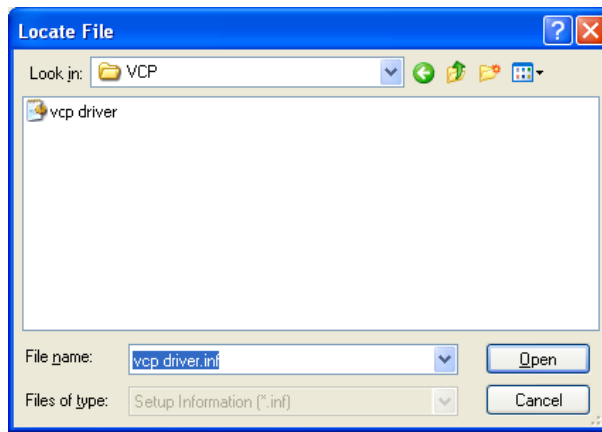
5. Select "Don't search. I will choose the driver to install". Click Next.



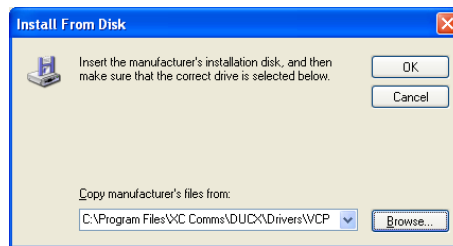
6. Select Ports (COM & LPT). Click next.



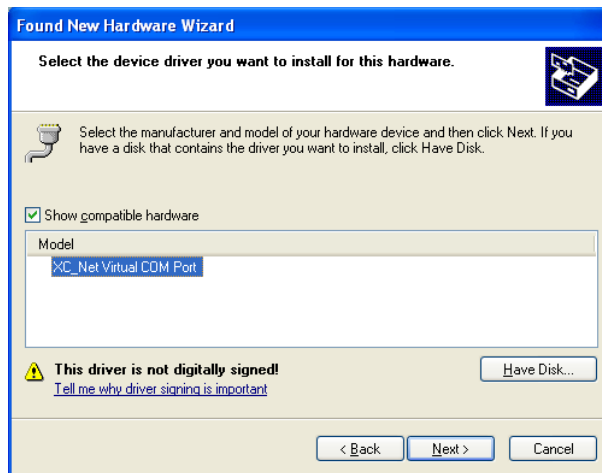
7. Click "Have Disk..." then browse to the Drivers folder within the folder in which DUCX was installed.



8. Select vcp driver and click Open

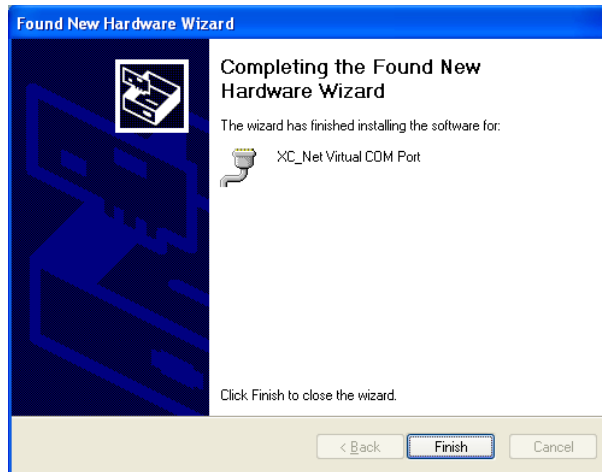


9. Click "OK"

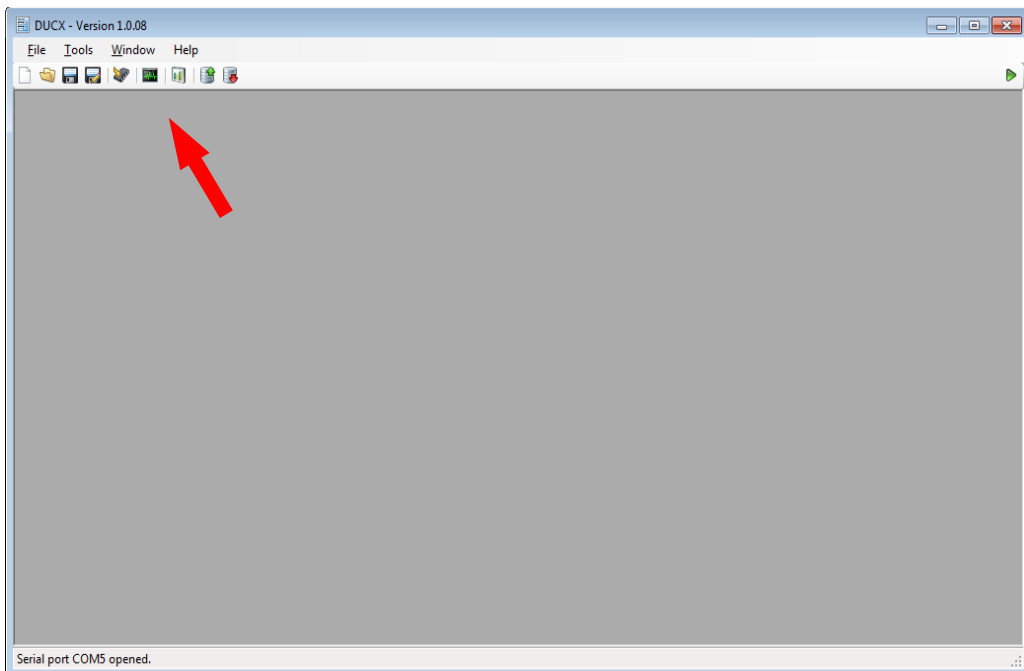


10. Click "Next". A warning will appear stating that the driver is not digitally signed. Click "Continue anyway"



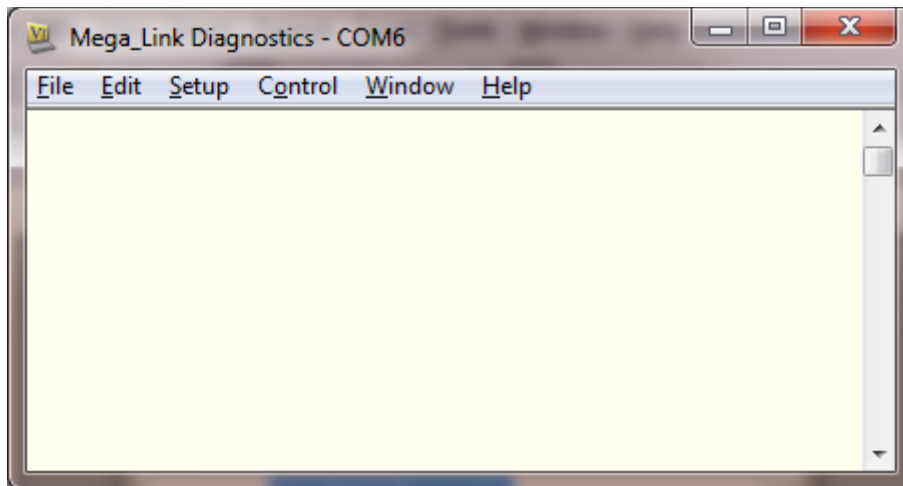


11. Click "Finish"
12. Repeat steps 3 to 11 for the second Virtual COM port driver.
13. Run the DUCX application. The opening screen will be like this:

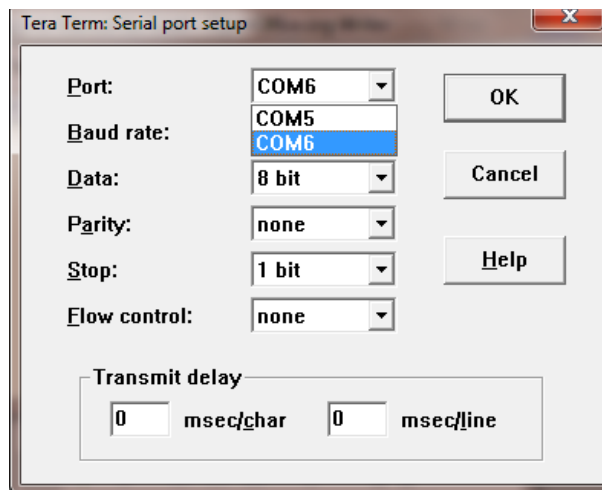


14. Note that the triangle in the top right corner of the screen is green if DUCX has established connection with a **Mega_Link**, otherwise it will be red. If DUCX has difficulty connecting it may be necessary to click on the triangle to re-establish connection.

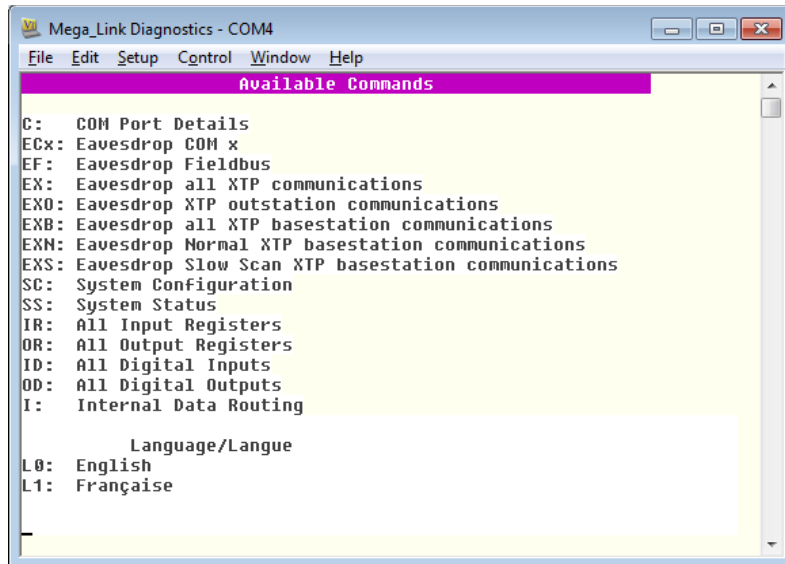
15. Click on the Diagnostic Terminal icon (as illustrated by the red arrow). The following window will open:



Note that the title bar indicates the default COM port that has been chosen. Click Setup/Serial Port, then click on the Port box and note that at least two COM ports are offered:



16. Select the higher-numbered COM port offered, then OK to return to the main window. Press the Return key and note a display similar to this:



17. If this display is not shown, repeat steps 15 and 16, selecting a different COM port. If the display is shown, select Setup/Save setup and save the configuration to the default location (TERATERM.INI).

The USB drivers and the software are now fully installed and ready for use.