



# ELAD Application Note AN-004

## Using FDM-DUO with N1MM Logger+

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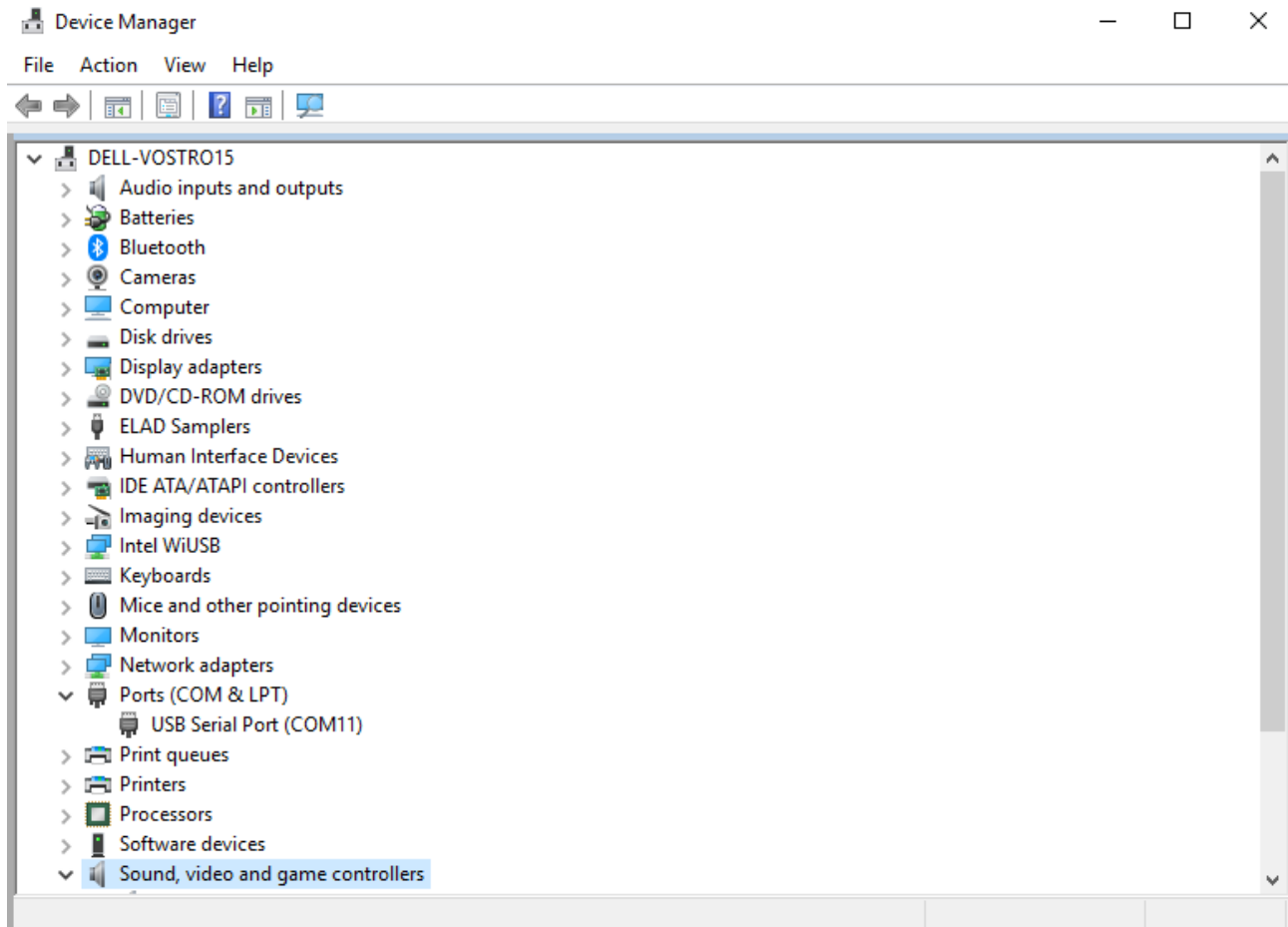
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## Introduction

This application note describes how to use N1MM and FDM-DUO.

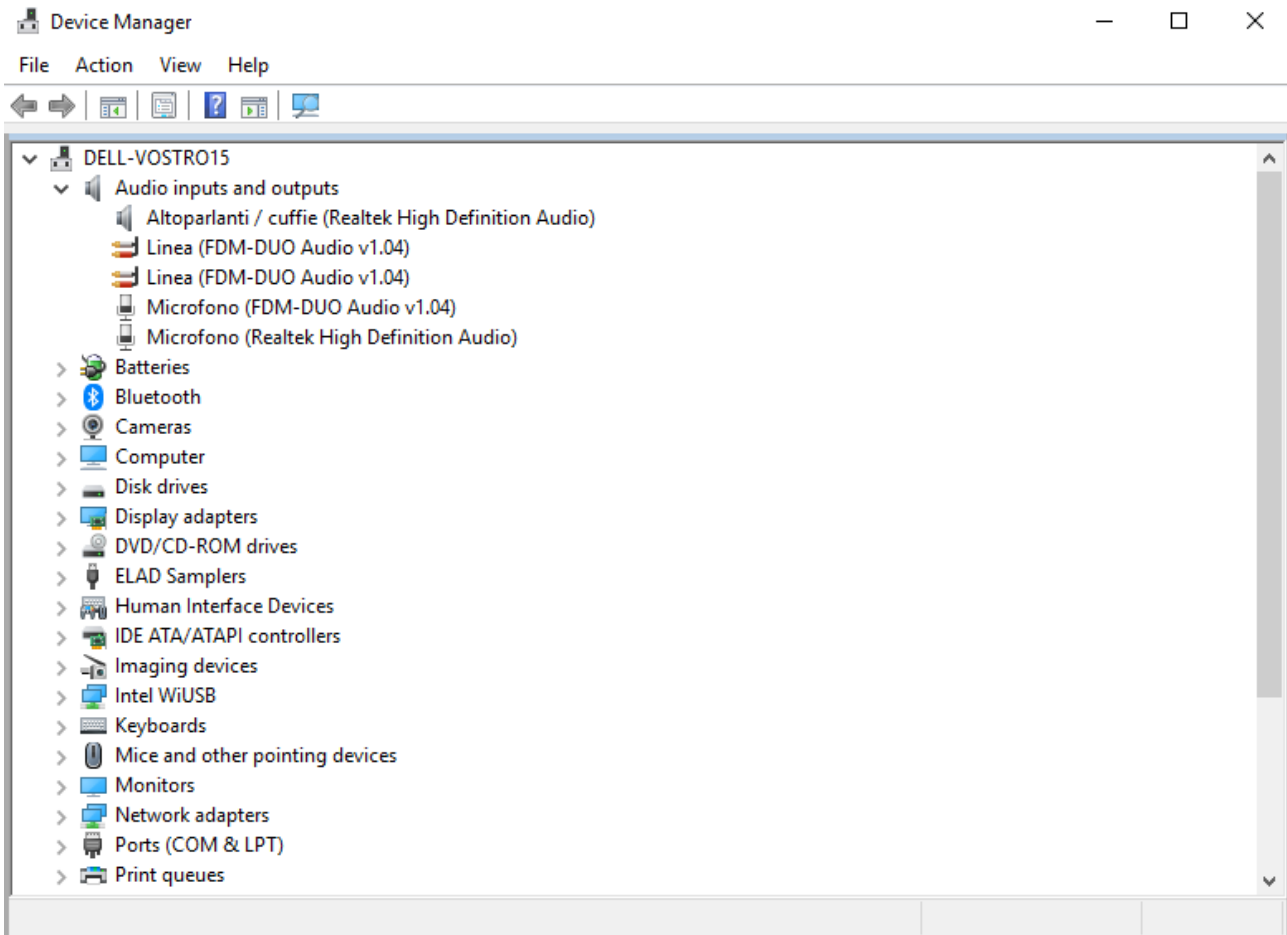
### 1 Pre-requirements

USB Serial Port driver from FTDI must be installed on the computer you are using. After connecting a USB cable between the computer and the FDM-DUO CAT connector, you need to identify the CAT USB port number. Open the Windows “Device Manager” and expand the “Ports (COM & LPT)” node. The CAT USB port is listed as “USB Serial Port”.

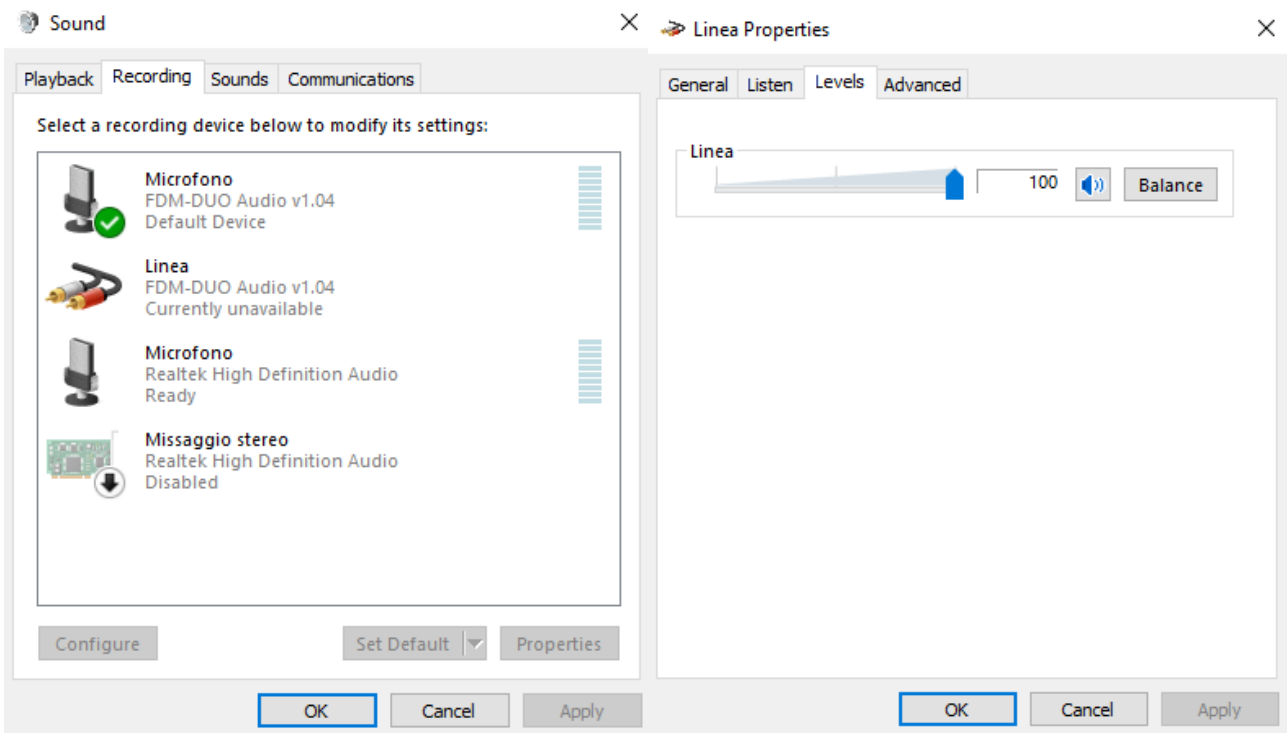
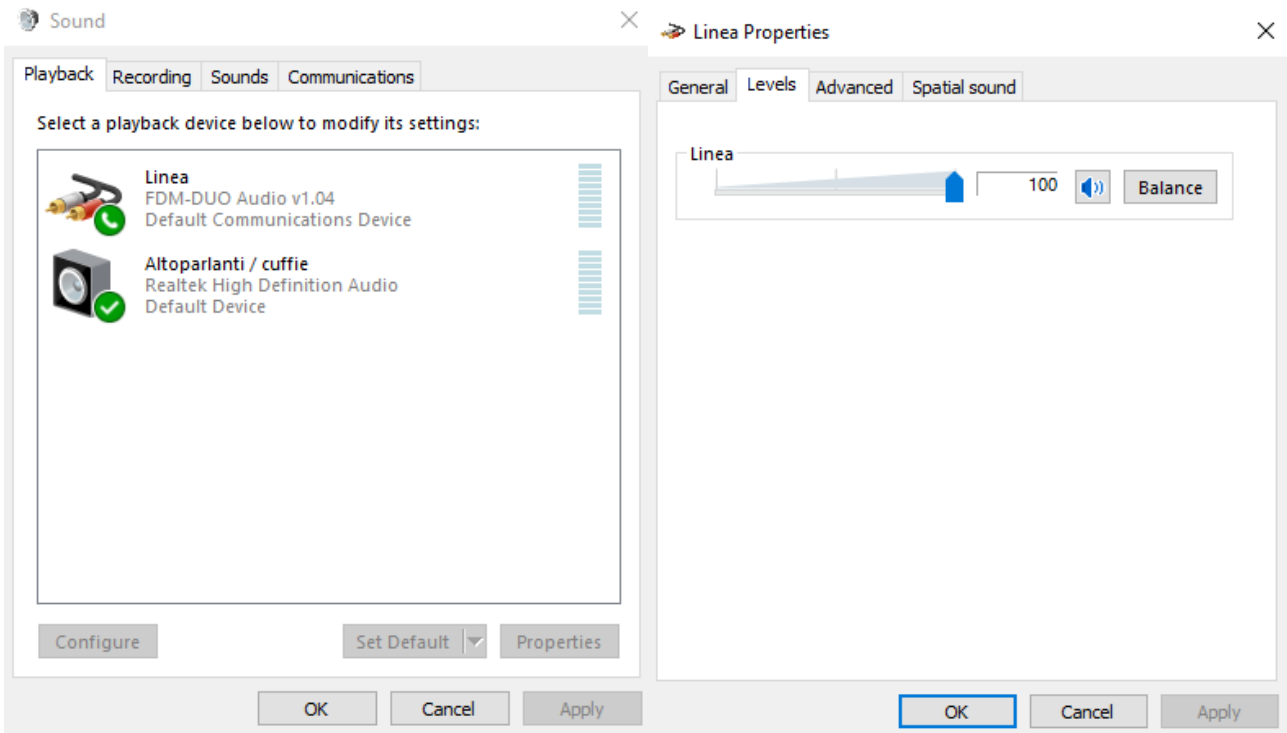


In this case the CAT USB port number is COM11.

After connecting a USB cable between the computer and the FDM-DUO TX connector, check if the computer detects the input and output audio lines of the FDM-DUO. You can find them under the “Audio inputs and outputs” node of the Device Manager.



Check also the volume of the playback and recording devices.

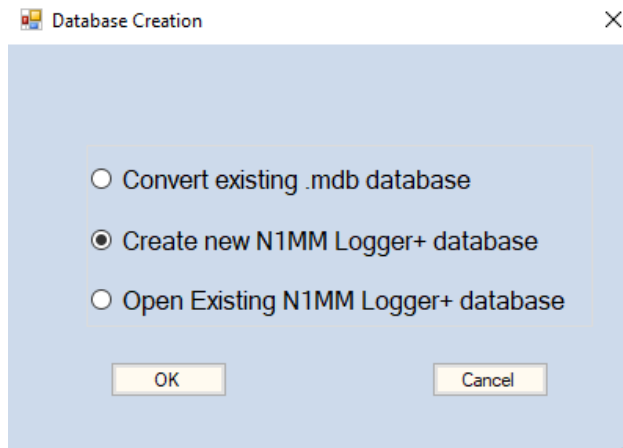


## 2 Settings

Some information :

- after the installation of N1MM it may be required to restart the computer,
- after starting the software it is also possible to follow a procedure to set up a contest,
- at the first start of the software warning windows may be shown, simply click on "OK" for each.

When the program opens, the following screen will open, allowing you to choose whether to create a new database or use an existing one. This step is necessary in order to use the FDM-DUO.



Once you have made your choice, click on "OK", give the database a name and save it in a folder (it is recommended to save it in the N1MM installation folder).

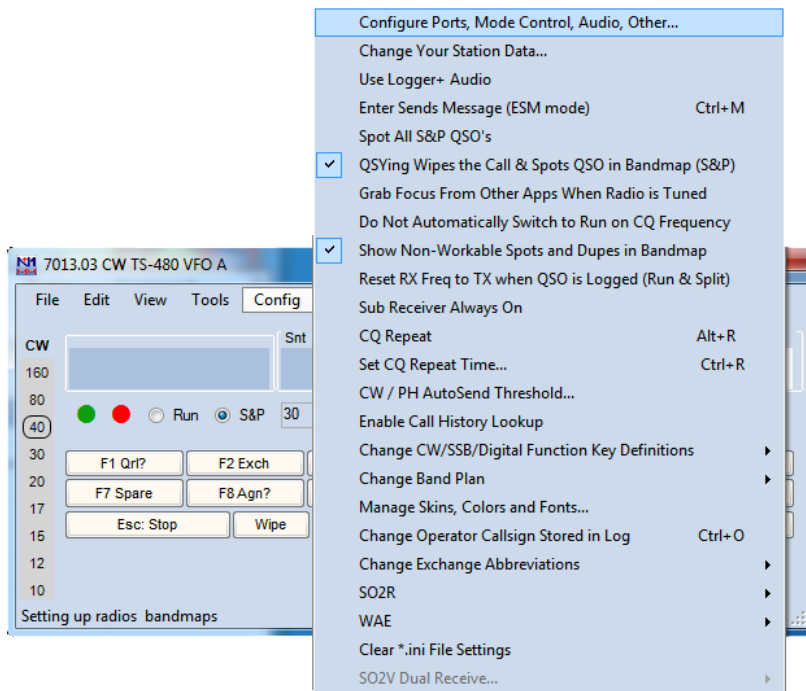
After creating the database, you will need to enter your information and information about the antenna.

Note: the "ARRL Section" field cannot be empty, if you do not have an American "Call" just insert "DX".

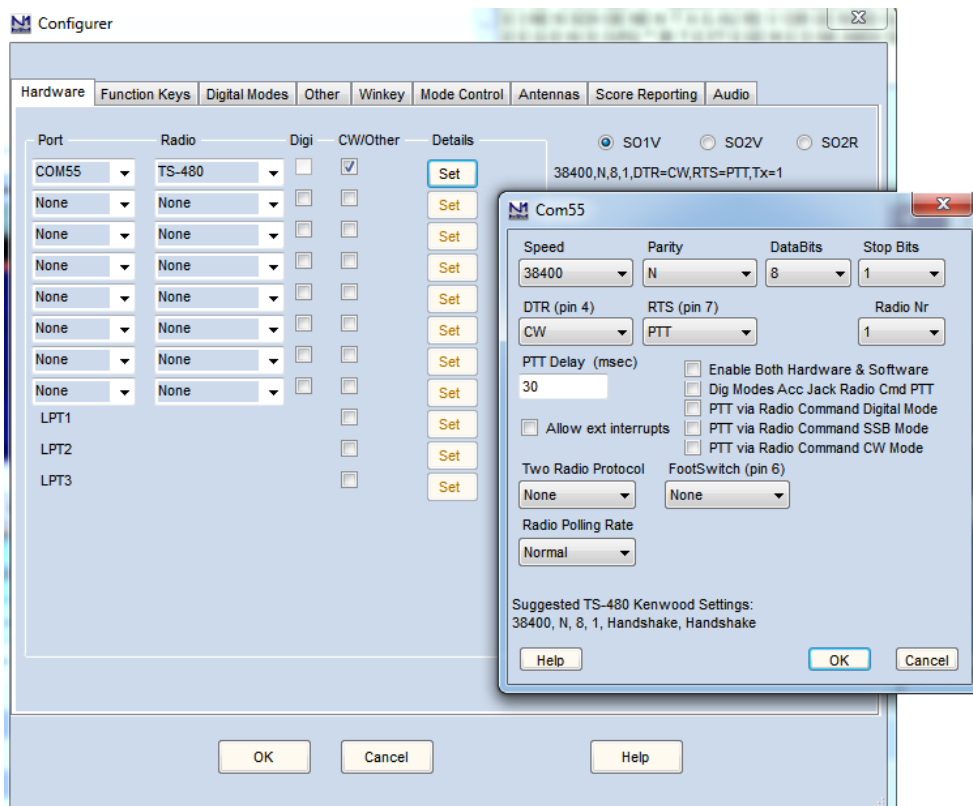
To check yours "CQ Zone" and "ITU Zone", you can use the following website:

<http://www.mapability.com/ei8ic/maps/maps.php>

Now the communication with the FDM-DUO must be set following the instructions below. Go to the "Config" menu and then click on "Configure Ports, Mode Control, Audio, Other ...".



In the "Hardware" tab, set the various parameters as follows.

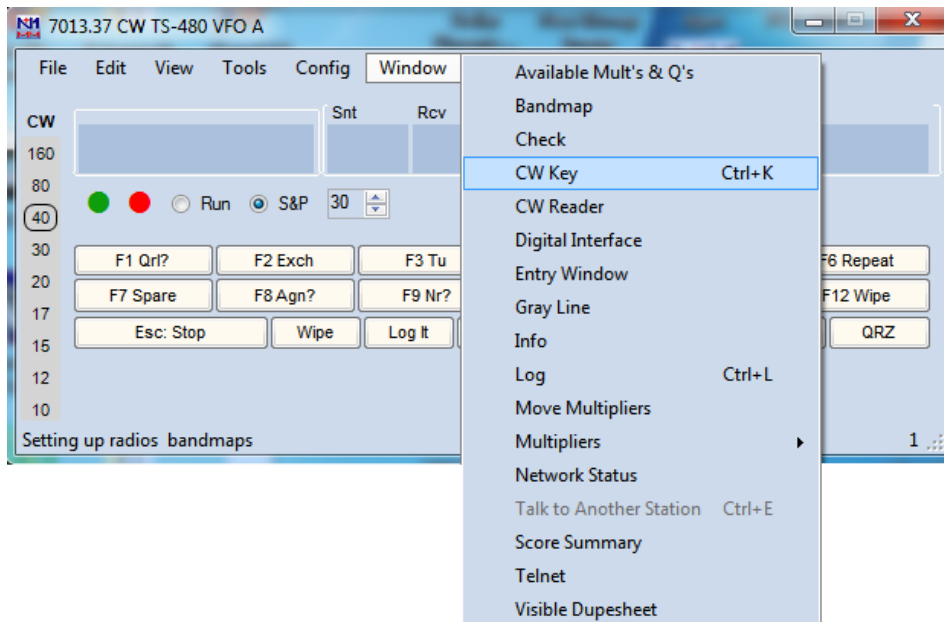


Note: for compatibility with these settings, some FDM-DUO menus must be set correctly :

- menu 37 "CW IN" must be set to "K+DTR" or "P+DTR",
- menu 54 "PTT" must be set to "IN+RTS".

### 3 Transmit

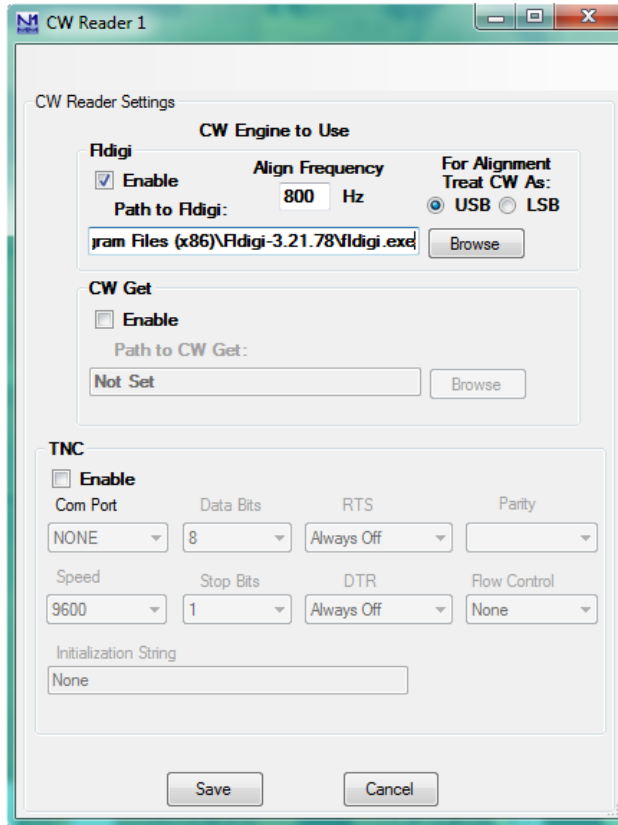
Go to the "Window" menu and click on the "CW Key" menu.



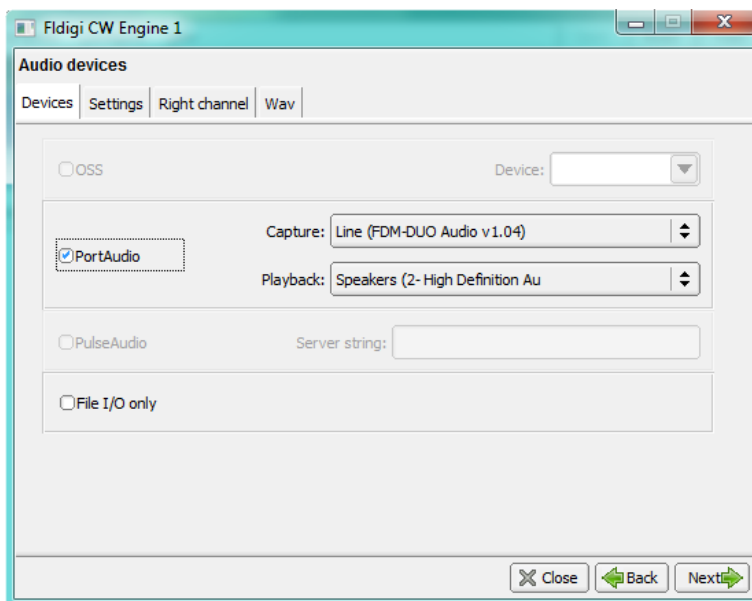
A window will open to enter the message to be sent. The transmission is immediate, when a letter is written it will be sent.

### 4 Receive

Go to the "Window" menu and click on the "CW Reader" menu. It will open a window where you can set the reader that will be used, this application note is based on the use of Fldigi which must then have been previously installed. Set the reader as shown in the image below, note the value of the "Align Frequency" field which for a more direct operation should be set to the same pitch value of the FDM-DUO.

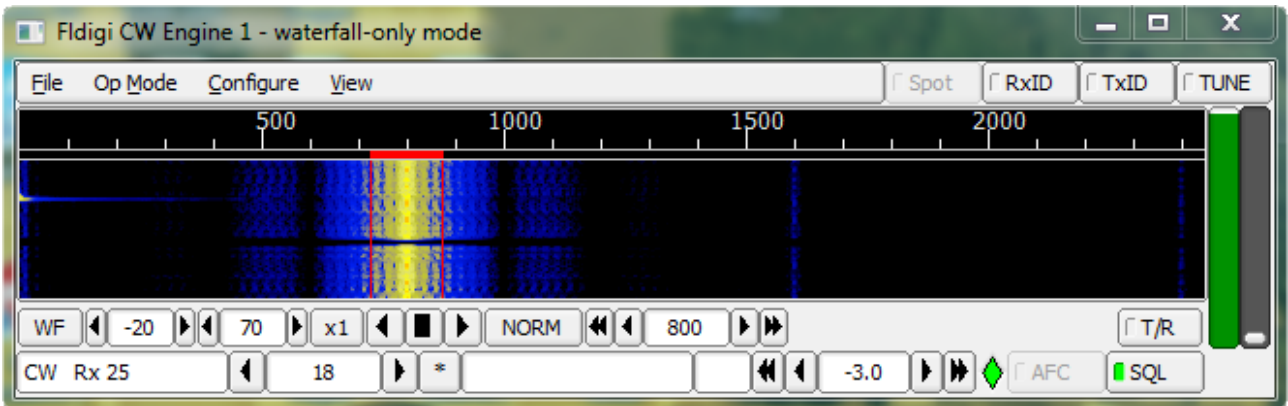


By clicking on "Save", a Fldigi settings window will open. It is important to set the "Capture" audio setting as shown below.





The Fldigi waterfall window will also be opened, where the received signal can be observed. Move the red frame if it is not in correspondence with the received signal.



The N1MM reader window will show the decoding of the received signal.

