jAReC mini

(j)ava (A)udio and (Re)mote (C)ontrol
(command line version of jAReC)
A Java multiplatform application to securely make your transceiver available for CAT and audio over the LAN or WAN

Console version Version 2.0

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Contents

Introduction

This is a light version (command line only) of JAReC application, which can be used to redirect one of your computer serial ports and one audio port to Ethernet. In this way you will be able to connect to any serial port (embedded, USB/Serial modules or Bluetooth modules) remotely over the network and transport audio too with a special client. Some of my Android applications, are able to serially connect over the Ethernet so this can be a nice addition. PocketRXTX Android application can use the secure authentication feature to securely connect and control (CAT) your radio transceiver over Internet, with audio support.

Features

The mini version of jAReC has the same features as the GUI based one. For the full list of features please consult jAReC v2.0 user guide available online here (multilingual):

https://www.yo3ggx.ro/jAReC/doc20/i.html

or as a PDF file here (English only):

https://www.yo3ggx.ro/jAReC/doc20/jAReC_v2.0.pdf

Limitations

Current version of the application has the following limitations:

- Configuration file must be manually edited or from the JAReC application GUI
- Not tested, but most probably work on Mac computers too.

WARNING!!!

Use this application on your own risk. I cannot be held responsible for any damage caused to your system.

The configuration file

This file is the same as the one from the GUI version. You can even edit the file using the GUI and then use it with the console (mini) application.

Starting the application

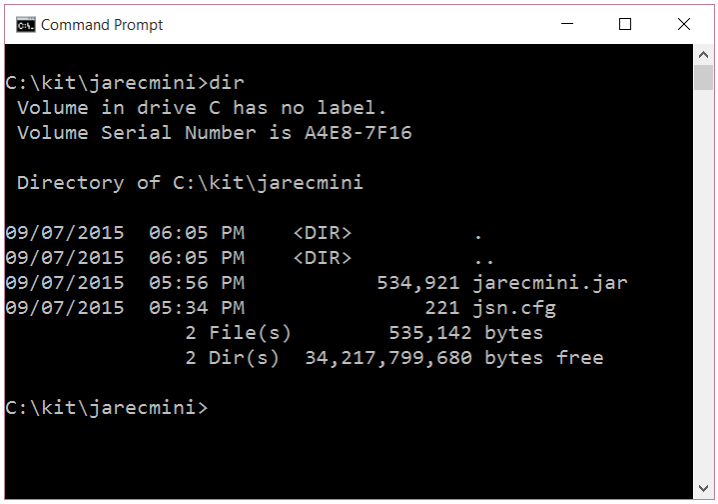
To use the application you must download the latest java runtime from Oracle (currently version 1.8.0_102).

When you first start the application with the default configuration file, take care that the parameter `bAutostart` to be set false. You will get the list of current settings and what is available on your system. To run it enter the following command:

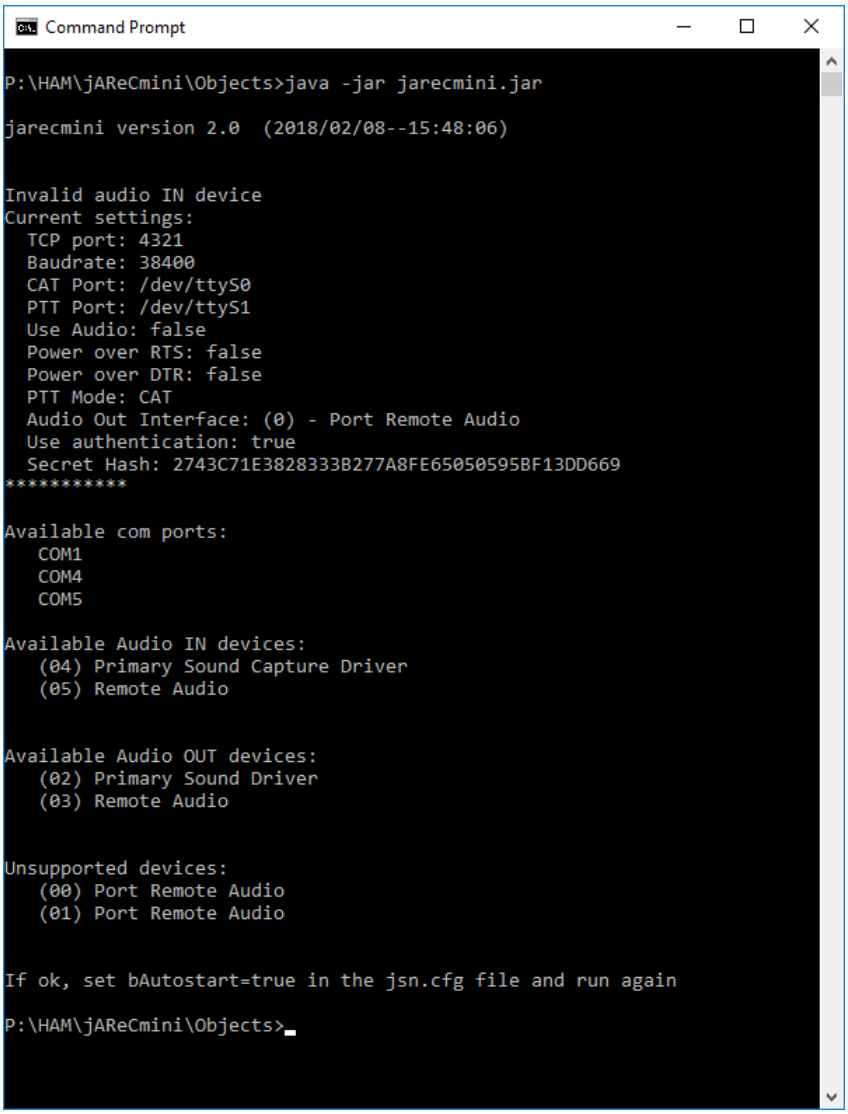
```
java –jar jarecmini.jar
```

Windows

To start the application in Windows, open a DOS command prompt and go to the folder where jarecmini.jar and jsn.cfg file was saved.

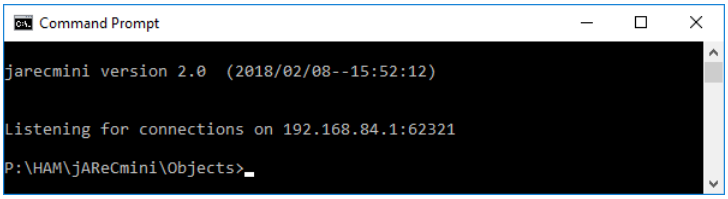


Run the command:

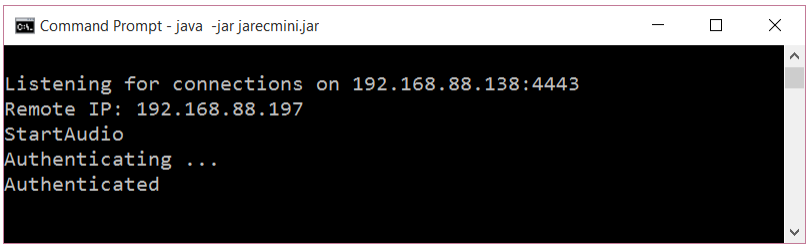


You will see a list of available COM ports, audio in and audio out devices. Please note the number before the name of the audio device you want to use (for both in and out).

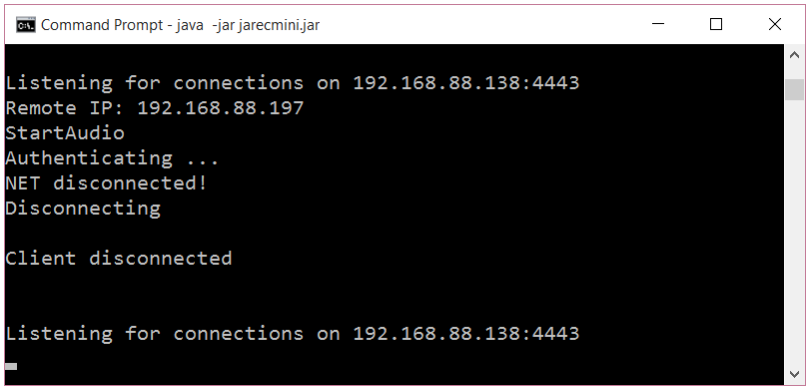
Edit the configuration file (jsn.cfg) according to your needs. Keep `bAutoStart=false` and run again to check that you selected the right parameters. When ready, change `bAutoStart=true` and run again. The application will go to listening mode:



Start a connection from Pocket RxTx. Remote IP address will be displayed, audio will be started (if selected) and authentication performed (if selected).



You can now use the connection as usual. If you stop Pocket RxTx, then jarecmini will go back to listening mode.



Linux

Using a terminal enter the following command when you are in the folder containing the program:

```
java –jar jAReC.jar
```

The operation is similar as with the Windows version.

You can simultaneously start several instances of the application, one for each serial port you want to access through the network. If you have multiple transceivers, you can start one instance of the application for each of them. The only requirement is to use different TCP port for each connection, in order to have unique sockets.
Serial Port can be not only a local physical serial port (like COM on the motherboard or USB/Serial interface) but even a virtual COM port, for example the one created by a Bluetooth interface. You can connect in this way to your Bluetooth device over the network.

Application history

Version 0.8.1 (Sep 7, 2014). *First public release of the application*

NOTE:

Starting with the version 0.9.0-16, jAReCmini has the same features as the GUI based version, so please check the history in the GUI version user guide.