

ICTALK v1.0

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Introduction

I normally have an ICOM PCR-1000 for my scanning needs but unfortunately it was damaged by a lightning strike and looking for an alternative I dug out my old ICOM R-10 and thought I would be able to find a suitable (free) program on the Internet to drive it. I was very disappointed when I found programs which either worked well but only did part of what I wanted or programs which didn't work very well at all, for example stopping one channel past the signal when scanning.

So I wrote ICTALK, I make no super claims for it but it does everything I want it to do and if anyone else finds it's useful I am more than happy for it be used by others free of charge, provided that it is not sold or modified without my written permission and you use it at your own risk, in other words I am not responsible for any damage done. Will it work with radios other than the R-10? Possibly, so long as they accept standard ICOM commands but no guarantees.

As one of the things programs sometimes seem to lack is effective documentation, I hope that this user guide will be useful.

```
C:\ ICTALK.EXE

*** IC Talk (IC-R10) v1.0 ***
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v 145          Signal=          FM

-----

Search Range
145.2
145.8
12.5
Stop

-----

A = AM          + = Up 1 channel      Sxxx.xxx = Search Start Freq
F = FM          - = Down 1 channel    Exxx.xxx = Search End Freq
W = WFM         Y = Toggle stop mode  Ixx.x  = Frequency Increment(Khz)
U = USB         C = Clear Bank00 chans Space Bar = Continue
L = LSB         R = Run Search mode    Bxx    = Scan Channel bank Nr. xx
H = Help toggle X = exit Mode/Prog    M      = Mask current channel
xxx.xxx = Set UFO Frequency (Ex. 145.675)
Dxx    = Add Bank00 chans. to bank xx
```

Requirements

This program is certainly not 'bloat-ware' and is only about 40KB so should be easy to download even with a slow modem connection and run under any version of Windows from 95 onwards plus DOS. I have mainly been using it under Windows XP Professional.

PC with DOS or Windows
Serial Interface (Com1, 2, 3 or 4)
CT-17 ICOM Interface or
Modified OPC-478 cable or
Homemade converter

I personally use a kit I bought from Maplins for the connection PC to R-10.

Features

- One key selection of mode AM/FM/WFM/LSB/USB
- 100 Memory Banks with up to 200 Channels/Bank
- Bank and Channel naming
- Search mode with automatic storage of channels found
- Configurable start and end frequencies for searching + step size
- Automatic deletion of duplicate channels
- Sorting of channels into frequency order
- Adding of search channels to any bank
- Manual or automatic channel stepping
- On-screen Help

Installing ICTALK

There is no installation you simply need to create a directory and unzip the files into it. They should include :

ICTALK.EXE
ICTALK.PDF
ICTALK.CFG
BANK01.DAT

If you want to pass this program on to anyone else please make sure that all four of these files are included.

ICTALK.PDF is this user manual.

ICTALK.CFG contains the configuration information for the program and can be edited with any normal text editor such as Windows 'Editor' or 'Wordpad' (Save in text mode).

The first line should be either com1, com2, com3 or com4 depending on which communication port you plan to use.

The second line is the speed in Bauds, either 1200, 2400, 4800, 9600 or 19200

The R-10 accepts all of these speeds except 2400 Baud. Note that using 1200 bauds may slow up the scanning rate due to the length of time needed to send and receive messages from the R-10.

BANK01.DAT is an example of a memory bank.

Memory Banks

You can have memory banks numbered 01 to 99 and BANK00.DAT is a special bank used for storing channels found when searching. Like the config file the bank files can be modified with any normal text editor. The first line of the file is the name of the memory bank, the second is the mode used for scanning the bank (AM, FM, WFM, LSB or USB). Each entry from the third line onwards is two lines the first is the frequency in Mhz and the second is either blank or contains the name of the Channel (up to 20 Characters). The channel list ends with the entry '9999'.

Getting Started

So you have connected your PC to the ICOM R-10 with the appropriate cable. Modem status signals are not checked or required so you only need the data lines, usually pins 2 and 3 on the PC and ground. Now switch on the scanner and double click on ICTALK.EXE. The program should show the initial screen (as shown on the first page) and the radio should tune to 145Mhz in FM mode. If not then there is probably something wrong with your connection PC to R-10 or the config file is not correct (wrong com port or wrong speed (Standard for the R-10 is normally 9600Baud but you can configure the R-10 to any of the available speeds).

Notice the screen is divided into 4 sections, at the top is the program title and version, then the panel showing frequency + channel number if in 'scan mode', signal strength (if receiving a signal) and the current mode. Below this on the right hand side are the search parameters, in this example, start frequency 145.2Mhz, end frequency 145.8Mhz a step size of 12.5Khz and Stop modus (more about this later). At the bottom is a help display with the commands listed.

The program operates in 3 modes they are :-

Normal Mode

Search Mode

Scan Mode

***** All commands should be entered in lower case *****

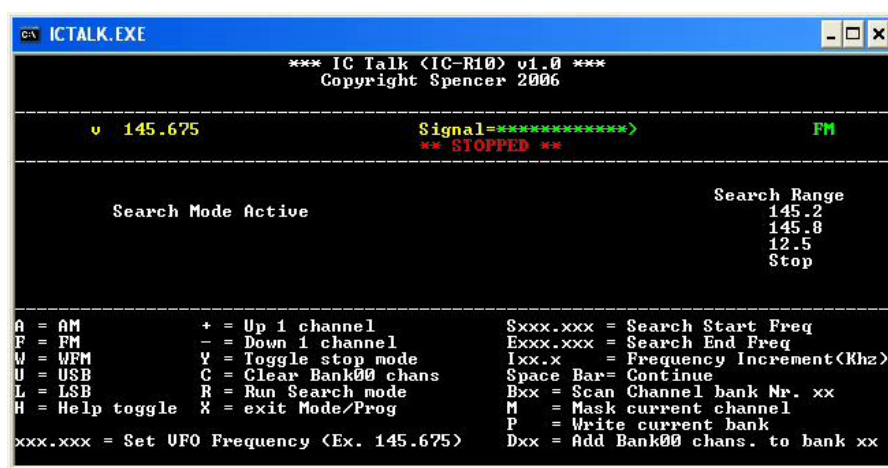
Normal Mode



The program is in this mode when first started :-

- Pressing 'H' toggles the help mode between the help information, Copyright information and blank screen for those who prefer their screens to be less cluttered
- Select any mode by pressing 'A' for AM, 'F' for FM, 'W' for Wide band FM, 'L' for LSB and 'U' for USB
- Pressing 'C' will clear BANK00 (more about using this bank later)
- Pressing '+' will increase the frequency by the step value, in the picture above 12.5Khz
- Pressing '-' will decrease the frequency by the step value
- Typing 'Ixx.x' followed by frequency (in Khz) sets the step increment (Ex. I12.5)
- Typing a numerical value followed by Enter will set a new frequency (Ex. 432.525)
- Pressing 'X' while in Normal mode exits the program

Search Mode



```

*** IC Talk <IC-R10> v1.0 ***
Copyright Spencer 2006

v 145.675          Signal=*****>          FM
*** STOPPED ***

Search Mode Active          Search Range
                             145.2
                             145.8
                             12.5
                             Stop

A = AM          + = Up 1 channel          Sxxx.xxx = Search Start Freq
F = FM          - = Down 1 channel          Exxx.xxx = Search End Freq
W = WFM         Y = Toggle stop mode        Ixx.x  = Frequency Increment(Khz)
U = USB         C = Clear Bank00 chans      Space Bar= Continue
L = LSB         R = Run Search mode         Bxx   = Scan Channel bank Nr. xx
H = Help toggle X = exit Mode/Prog         M    = Mask current channel
xxx.xxx = Set UFO Frequency (Ex. 145.675)  P    = Write current bank
                                           Dxx   = Add Bank00 chans. to bank xx

```

In this mode you will be searching for active channels between two frequencies with a step value between 100Hz and as big as you want. Most often on VHF your step size will be 8.33, 12.5, 25 or 50Khz.

- Typing 'Sxxx.xxx' will set the start frequency in Mhz (Ex. S145.2)
- Typing 'Exxx.xxx' will set the end frequency in Mhz (Ex. E145.8)
- Typing 'Ixx.x' will set the stepping increment in Khz (Ex. I12.5)

If you want to you can press 'C' to clear the search bank (BANK00.DAT), or if you don't then any channels found will simply be added to the bank. Channels which are already in the bank will not be added again, so no duplicates.

Hitting 'R' will run the search and the program will stop on any active channel, displaying the word stopped in the upper part of the display and the signal strength. The search will automatically restart 3 seconds after the channel becomes inactive. Or you can force the search to continue by hitting the 'SPACE BAR'.

If before beginning the search (in 'normal mode') you hit the 'Y' key then the search mode will change from 'stop modus' to 'continuous'. This means when you run the search it will not stop on any signal found but simply store it in BANK00.DAT and continue (actually it's stored in memory and written to BANK00.DAT when you exit the search mode.

Pressing '+' or '-' while searching will stop the search and each press of '+' or '-' will increment or decrement the frequency within the search range by the step size. Pressing 'R' will resume the search.

To leave 'search mode' and return to 'normal mode' simply hit the 'X' key.

Scan Mode

```
*** IC Talk <IC-R10> v1.0 ***
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v 145.7      ch 41      Signal=*****>      FM
DB0SB Bonn

h01
2M/70cm Amateur

Search Range
438
440
12.5
Stop

A = AM      + = Up 1 channel      Sxxx.xxx = Search Start Freq
F = FM      - = Down 1 channel    Exxx.xxx = Search End Freq
W = WFM     V = Toggle stop mode  Ixx.x   = Frequency Increment(Khz)
U = USB     C = Clear Bank00 chans Space Bar= Continue
L = LSB     R = Run Search mode   Bxx     = Scan Channel bank Nr. xx
H = Help toggle X = exit Mode/Prog M      = Mask current channel
P          = Write current bank
Dxx       = Add Bank00 chans. to bank xx

xxx.xxx = Set UFO Frequency <Ex. 145.675>
```

Typing 'B' followed by a bank number in 'Normal mode' will select the bank and put you in 'scan mode' (Ex. B01). If the bank does not exist you will receive an error report and the program will continue in 'Normal mode'. Selecting an empty bank will display a frequency of '9999'.

The program immediately begins scanning the channels in the bank, the bank number and the name of the bank are displayed on the left of the screen. And next to the frequency display is the number of the channel currently being scanned. The scan mode will stop on any active channel it finds and the name of the channel will be displayed if it has been entered. As in 'search mode', 3 seconds after the channel goes inactive the scan will continue. Or you can hit the 'SPACE BAR' and the scan will continue even though the channel is still active.

As with search mode pressing '+' or '-' stops the scan and you can step through the channels one at a time in a positive or negative direction. Pressing 'R' resumes the scan.

If the scan keeps stopping on a channel because of interference or a carrier with no modulation, you can hit the 'M' key and this channel will be masked from the scan and not checked. This is a temporary masking, if you exit 'scan mode' and then re-enter it by typing for example 'B01' again, then the channel will reappear. If you want to permanently remove the channel from the bank then after masking any channels you don't want. Press 'P' this will put all the wanted channels back into the bank but delete those which were masked. This also deletes any duplicates (if they exist) and sorts the channels into ascending frequency order.

This masking is especially useful if you are scanning BANK00 as this has been filled by the search mode and may have a number of channels which you do not want to keep.

Pressing 'X' will exit the 'scan mode' and put you back in normal mode.

If you have a number of channels in BANK00 which you want to keep you can add them to a bank by typing 'Dxx' in 'normal mode' (Ex. 'D01' would add the channels from BANK00 to those in BANK01) If the bank you choose does not yet exist then it will be created with the channels from BANK00 in it.

Conclusion

So now you are an expert on using ICTALK. Have fun and if you have any comments or questions I can be contacted at :-

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or

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