

# Amateur Radio Using Digital Modes



## Lab 4: First Contact

prepared by Joe Cupano, NE2Z

### What you will need

- Laptop running up to date build of Windows, Linux or Mac OSX with external USB sound device installed and functional
- Fldigi software installed and configured
- K2 Audio cable connected between external USB sound device and Baofeng UV-5R

### Purpose

Make your first Digital Mode contact.

### Introduction

When we tested the radios in Lab 1, we made quick simple voice contacts to one another in the lab to confirm we were sending a signal it was heard. In Lab 3 the macros we imported are to provide “canned messages” for frequently repeated portions of a communication such as ID or “templates” for signal reporting during a contest where contacts are short and sweet in order to build points.

In this lab stations will be grouped to share a specific frequency making contacts with one another. We will make extensive use of macros to reflect the operating style or cadence of a typical QSO.

# Exercise

STEPS	NOTES
1. Connect the Baofeng audio cable between the USB audio and the radio.	In the workshop, stations will be assigned to groups with each group assigned to a channel that was programmed into your radio during Lab 1.
2. Turn the radio on and select the channel assigned to you.	
3. Run <u>Fldigi</u> .	
4. Under <u>Op_Mode</u> menu, Select <u>PSK</u> and then <u>BPSK31</u> .	We will be using PSK31 mode.
5. Select one of the stations in your group that will be calling "CQ."	We will call this the first station in your group. CQ is used by someone looking to make contact with any station out there.
6. First station, click on the " <u>CQ</u> " macro button.	Other stations in your group should see the PSK31 signal and tune to it. Sometimes Fldigi picks out the callsign in a signal and populates the <u>call</u> window for you. Callsigns in the call window are registered in the <CALLSIGN> variable. Variables are used by macros.
7. Other stations enter the callsign of the station sending CQ into their <u>call</u> window.	Sure, everyone go ahead and respond at once and see who gets "heard."
8. One of the stations in the group, responds to the "CQ" by clicking the " <u>ANS</u> " macro button.	
9. First station enters the callsign of the station that responded into the <u>call</u> window.	The <u>Out</u> window is for entering a signal report for the station heard. We use the <u>RST reporting system</u> with <u>599</u> the best report you can give.
10. Enter <u>599</u> in the <u>Out</u> window.	All stations will see the conversation aka QSO, between the first and now second station.
11. Click the " <u>QSO</u> " macro button.	
12. Once first station has stopped sending, second station go ahead and share your info by clicking the " <u>QSO</u> " macro button.	Ensure the first stations callsign is in the <u>call</u> window as well as <u>599</u> in the <u>Out</u> window.
13. This is going to be a super short conversation so first station go ahead and click on the " <u>END</u> " macro button.	For contests like <u>Field Day</u> , the QSO is even shorter.
14. Second station, once you've heard first station end transmission go ahead and click the " <u>END</u> " macro button.	
15. Other stations in the group repeat steps 5 through 14 until every station has contacted one another.	

Congratulations if this is your first contact whether first digital, first ever! In the next lab we will experiment with different modes as well as get more hands-on and less use of macros.