

# Amateur Radio Using Digital Modes

## Lab 4: First Contact

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### 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
<ol style="list-style-type: none"> <li>1. Connect the Baofeng audio cable between the USB audio and the radio.</li> <li>2. Turn the radio on and select the channel assigned to you.</li> <li>3. Run <u>Fldigi</u>.</li> </ol>	<p>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.</p>
<ol style="list-style-type: none"> <li>4. Under <u>Op_Mode</u> menu, Select <u>PSK</u> and then <u>BPSK31</u>.</li> </ol>	<p>We will be using PSK31 mode.</p>
<ol style="list-style-type: none"> <li>5. Select one of the stations in your group that will be calling "CQ."</li> </ol>	<p>We will call this the first station in your group. CQ is used by someone looking to make contact with any station out there.</p>
<ol style="list-style-type: none"> <li>6. First station, click on the "<u>CQ</u>" macro button.</li> </ol>	<p>Other stations in your group should see the PSK31 signal and tune to it.</p> <p>Sometimes Fldigi picks out the callsign in a signal and populates the <u>call</u> window for you.</p> <p>Callsigns in the call window are registered in the &lt;CALLSIGN&gt; variable. Variables are used by macros.</p>
<ol style="list-style-type: none"> <li>7. Other stations enter the callsign of the station sending CQ into their <u>call</u> window.</li> <li>8. One of the stations in the group, responds to the "CQ" by clicking the "<u>ANS</u>" macro button.</li> </ol>	<p>Sure, everyone go ahead and respond at once and see who gets "heard."</p>
<ol style="list-style-type: none"> <li>9. First station enters the callsign of the station that responded into the <u>call</u> window.</li> <li>10. Enter <u>599</u> in the <u>Out</u> window.</li> <li>11. Click the "<u>QSO</u>" macro button.</li> </ol>	<p>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.</p> <p>All stations will see the conversation aka QSO, between the first and now second station.</p>
<ol style="list-style-type: none"> <li>12. Once first station has stopped sending, second station go ahead and share your info by clicking the "<u>QSO</u>" macro button.</li> </ol>	<p>Ensure the first stations callsign is in the <u>call</u> window as well as <u>599</u> in the <u>Out</u> window.</p>
<ol style="list-style-type: none"> <li>13. This is going to be a super short conversation so first station go ahead and click on the "<u>END</u>" macro button.</li> </ol>	<p>For contests like <u>Field Day</u>, the QSO is even shorter.</p>
<ol style="list-style-type: none"> <li>14. Second station, once you've heard first station end transmission go ahead and click the "<u>END</u>" macro button.</li> </ol>	
<ol style="list-style-type: none"> <li>15. Other stations in the group <u>repeat steps 5 through 14</u> until every station has contacted one another.</li> </ol>	

Congratulations is 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.