Memory Programming for a DVAP  
Using an ID-31A/51A

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There are two ways to program memories in an Icom ID-31 or ID-51 handheld. One method is using the standard memories and the other is to use the DR or Repeater List memories. Either will work and can be programmed using the programming software from Icom (CS-51) or RT Systems (ID-51).

**Standard Memory**

Using the standard memories of the radio, you will need a “base” memory for talking as with any repeater. Program one of the standard memories as a follows:

- **UR**: CQCQCQ
- **RPT1**: DIRECT
- **RPT2**: (blank)

To command the DVAP to link to a repeater or reflector, you must change what is in the UR field. For example, to connect to REF030C, change the value stored in UR to REF030CL. You can program another memory as above, but change the value stored in the UR field to the desired command. Rotate the channel knob to the memory with the desired command in UR and key your radio to transmit the command. Once connected, remember to go back to the “base” channel with CQCQCQ in the UR file for talking. Below is an example of programming a group of standard memories with your favorite linking commands.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Dup</th>
<th>Mode</th>
<th>Name</th>
<th>Your (UR)</th>
<th>RPT1</th>
<th>RPT2</th>
</tr>
</thead>
<tbody>
<tr>
<td>145.670</td>
<td>DV</td>
<td>WX4GPB-C</td>
<td>CQCQCQ</td>
<td>DIRECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>145.670</td>
<td>DV</td>
<td>Unlink</td>
<td>U</td>
<td>DIRECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>145.670</td>
<td>DV</td>
<td>REF030C</td>
<td>REF030CL</td>
<td>DIRECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>145.670</td>
<td>DV</td>
<td>REF001C</td>
<td>REF001CL</td>
<td>DIRECT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To conserve regular memories, you can enter the “base” channel as above with CQCQCQ in the UR field. Use the Your Sign memories to change the UR field for the selected memory channel. In the programming software under Digital > Your Call Sign, enter your favorite repeater or reflector linking commands in the memory locations.

To use, select your “base” channel. Press MENU > Call Sign and highlight the UR line. Press the blue center button, select Your Call Sign and rotate the channel knob to select the desired linking or DVAP command. Once the link command is transmitted and the repeater is linked, remember to change the UR back to CQCQCQ for talking.

**DR Memories**

A new feature included with the ID-31A and 51A makes D-STAR programming much easier. If you are using DR Mode for other repeaters, using it with a DVAP is also very easy. Using either the Icom or RT Systems software, programming a DVAP channel is easy.
In the **Icom** software, locate the Repeater List under the Digital group on the left side of the screen. Under Group Name, you may want to create a separate group such as DVAP. Clicking on the Group Name, enter a name for the DVAP Channel and enter the frequency in the Operating Frequency column, Type Yes in the USE (FROM) column and NONE in the Position column.

In **RT Systems**, locate the DR Memories tab at the bottom of the screen. Program the simplex frequency in both the Receive Frequency and Transmit Frequency columns and select Simplex in the Offset Direction. Leave the Offset Frequency column blank. Place a check mark in the repeater Select Column and type a name for the memory. You may want to create a separate bank in the Bank column such as 25: DVAP.

To select the DVAP frequency in DR mode, press and hold the DR button for one second to enter DR Mode as shown in the picture. Press the Blue button and select Repeater List. You should see a list of banks and scroll to select the DVAP bank you created and select. Your DVAP memory name should be displayed to select. You will not have to change to FROM setting while operating your DVAP.

Highlight the TO field and press the Blue button. Select Your Call Sign and Use Repeater for the “talk” position with CQCQCQ. To connect to a reflector, rotate the Channel knob at top to select the desired reflector and press the PTT. Remember to return to the Use Repeater selection by rotating the knob to that position for talking.

**Note**: The ID-5100 and IC-7100 have similar menus and memories and can be setup in a similar way.