

## *How do I...?*

### *An occasional series*

#### *This week: DMR Adventures--Roundtable on "DMR-First Steps"*

Digital Mobile Radio (DMR) is one of the "new kids on the block" in the world of amateur radio.

If you are brand-new to DMR you might wish to link to one of our popular articles which will give you a starting point.

<https://www.radioclub-carc.com/wp-content/uploads/2020/08/How-Do-I-DMR-Radio.pdf>

Today we have four members of the Cumberland Amateur Radio Club discussing how to get started in DMR. They are:

Mike	KB3GPX,
Rob	KC3QIJ,
Steve	N3FWE. and
Frank	KB3PQT

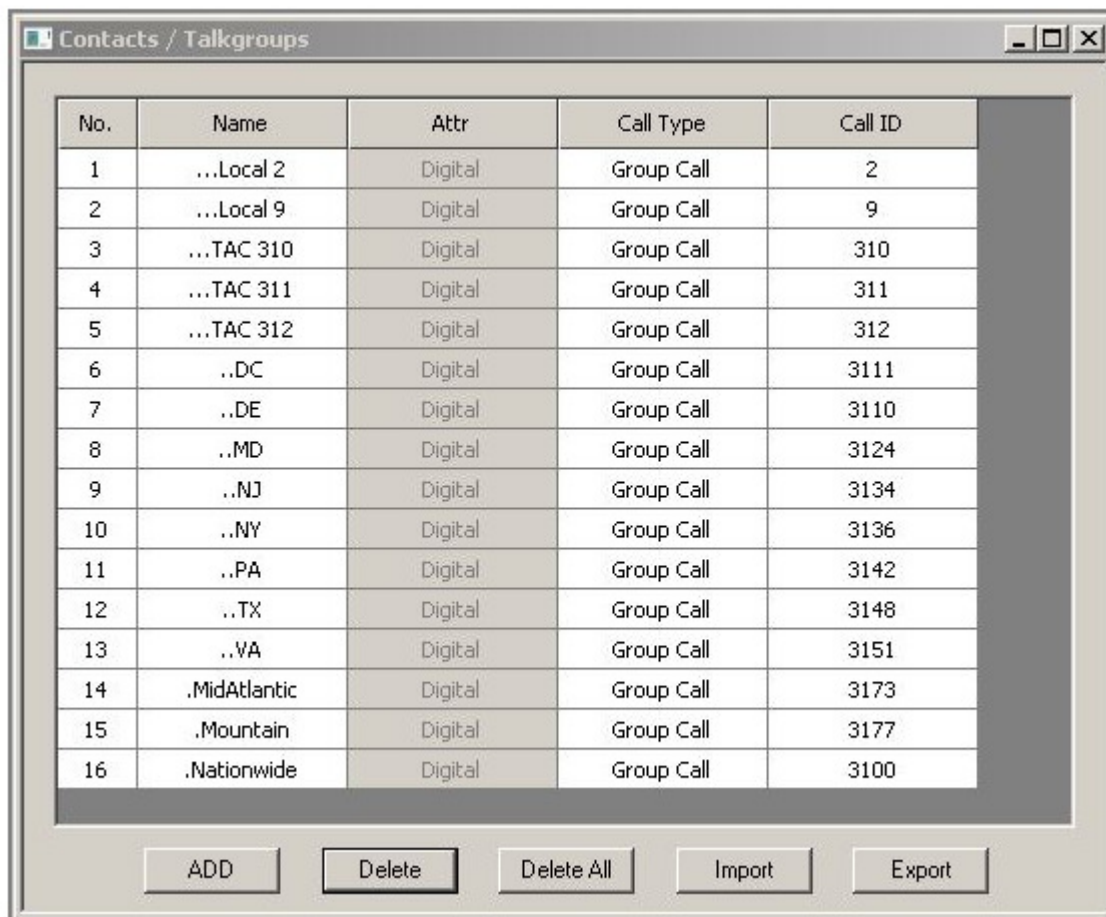
Disclaimer: Our Managing Editor and Publisher requires us to say this:  
*Any brand names and model numbers mentioned are trademarks of their respective owners. Mentioning them here does not imply endorsement by the Cumberland Amateur Radio Club or its individual members.*

<u>Speaker</u>	<u>His input to the roundtable conversation</u>
Frank, KB3PQT	So, once you have decided to start down the road of adding DMR to your station's capabilities, the first step is to buy a radio – Right?.
Mike, KB3GPX	Actually, No. First, you want to become a registered DMR User so you can access everything the DMR world has to offer.
Frank, KB3PQT	How do I do that?
Rob, KC3QIJ	You'll need to get a DMR ID number from this website: <a href="https://www.radioid.net/account/login#!">https://www.radioid.net/account/login#!</a> The process is easy and free.  Click SIGNUP to set up your account. Send them a PDF file of your FCC license (proof that are a ham) Within 24 hours you'll get your DMR ID via eMail Save your DMR ID. Later, you'll put that number in your radio.

- Editor's Note: Frank KB3PQT did that. The total process took him maybe 5 minutes!
- Frank, KB3PQT Ok, so my radio arrived. I unpacked it. It powers on. I charged the battery overnight. How do I use this thing?
- Mike, KB3GPX Whoa. Slow down! This isn't an analog radio. The digital side takes a little more work.
- Rob, KC3QIJ As suggested on various internet resources, the first thing I did was install the programming software to my computer, and then update the radio firmware to the latest version. I believe this is an important step to do with digital radios, as firmware updates can have a profound impact on their operation. That process was well explained in the instructions that came with the firmware download and was fairly smooth. (I did have a COM port conflict on my laptop that was easy to figure out.)
- Frank, KB3PQT OK... then what?
- Rob, KC3QIJ Here's a good source for DMR for beginners: <https://miklor.com/DMR/> . The author / owner of this website is from South-Central PA, so the codeplug info is particularly relevant to our area. You'll also notice that he has radio-specific information for popular DMR radios, in addition to very good overall information for DMR novices (this is the most helpful single website I've found for DMR so far). I sourced my codeplug spreadsheet for my radio from this website.
- Editor's Note: The Miklor site is very comprehensive, and especially helpful for owners of AnyTone, BTECH, BaoFeng, and TYT radios. He has information on other radios as well. There are sample codeplugs. At the moment the site does not specifically reference Alinco materials.

For Central PA users: <http://k3nyj.blogspot.com/2019/12/alinco-dj-md5tgp-codeplug.html>  
Appears to be a good starting place. Please be cautious as radio models and the software may have changed since this was written in late 2019, and may not work on current versions without modification. Regardless, it is an excellent overview of the DMR environment in Central PA.

Here is sample codeplug from the Miklor site:



No.	Name	Attr	Call Type	Call ID
1	...Local 2	Digital	Group Call	2
2	...Local 9	Digital	Group Call	9
3	...TAC 310	Digital	Group Call	310
4	...TAC 311	Digital	Group Call	311
5	...TAC 312	Digital	Group Call	312
6	..DC	Digital	Group Call	3111
7	..DE	Digital	Group Call	3110
8	..MD	Digital	Group Call	3124
9	..NJ	Digital	Group Call	3134
10	..NY	Digital	Group Call	3136
11	..PA	Digital	Group Call	3142
12	..TX	Digital	Group Call	3148
13	..VA	Digital	Group Call	3151
14	.MidAtlantic	Digital	Group Call	3173
15	.Mountain	Digital	Group Call	3177
16	.Nationwide	Digital	Group Call	3100

ADD Delete Delete All Import Export

If you have used the RTS programming software for an analog radio, the programming concepts you will use with DMR should be pretty familiar.

Rob, KC3QIJ I briefly considered creating a custom codeplug for my radio from scratch--I don't recommend that for beginning users of DMR. I'm not a fan of reinventing the wheel, so I was able to source a ready-to-go codeplug (spreadsheet) for the South-Central PA area that included local repeaters and the related settings to access them.

Steve, N3FWE [Steve wanders into the conversation] My codeplug is from scratch. I looked at others and did my own code plug. I figured it was the best way to learn how to make one. I need to add a couple new repeaters to my code plug. Seems like it's always work in progress.

Mike, KB3GPX The programming software I would consider an essential item to have. There is a learning curve to programming, however there is a nice feature that eases the potential difficulties of programming: the codeplug. The

codeplug is a file that contains all the info that a DMR radio needs: frequency, repeater offset, color code, time slot, talkgroups, and other bits. Steve, I have been doing some 'housekeeping' on the codeplug adding and removing stuff to organize a bit better.

Frank, KB3PQT      So the code plug, at its heart, is really nothing more than the programming file I create with the RTS software for my analog radios.

Mike, KB3GPX,	[in unison]	Yes!!!!!!
Rob, KC3QIJ,	[in unison]	Yes!!!!!!
Steve, N3FWE	[in unison]	Yes!!!!!!

Frank, KB3PQT      Thanks guys! So I have a radio, a User ID, and the software is downloaded. At this point I just need to get the radio programmed and get on the air.

Catch 'ya on the air!