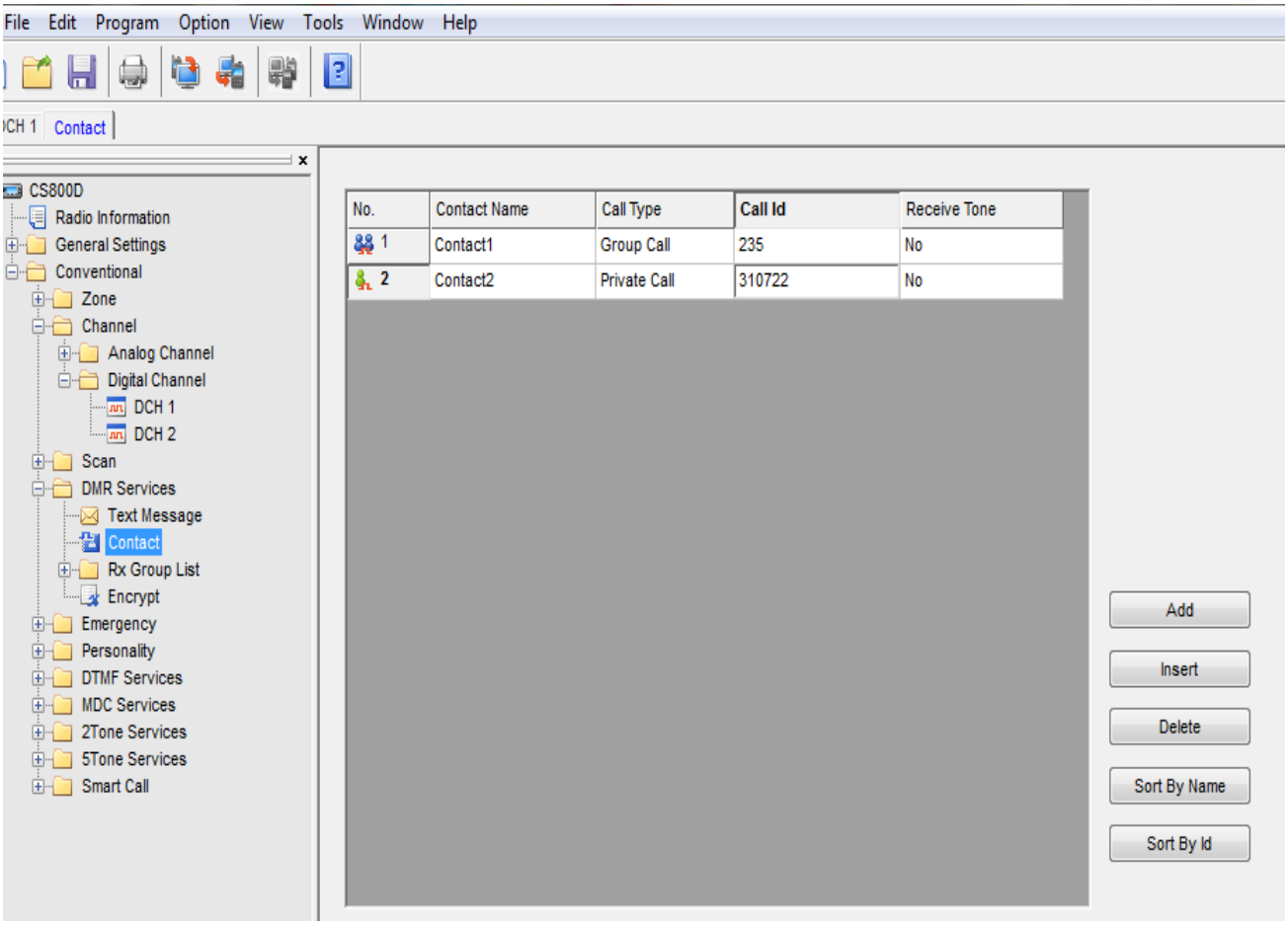
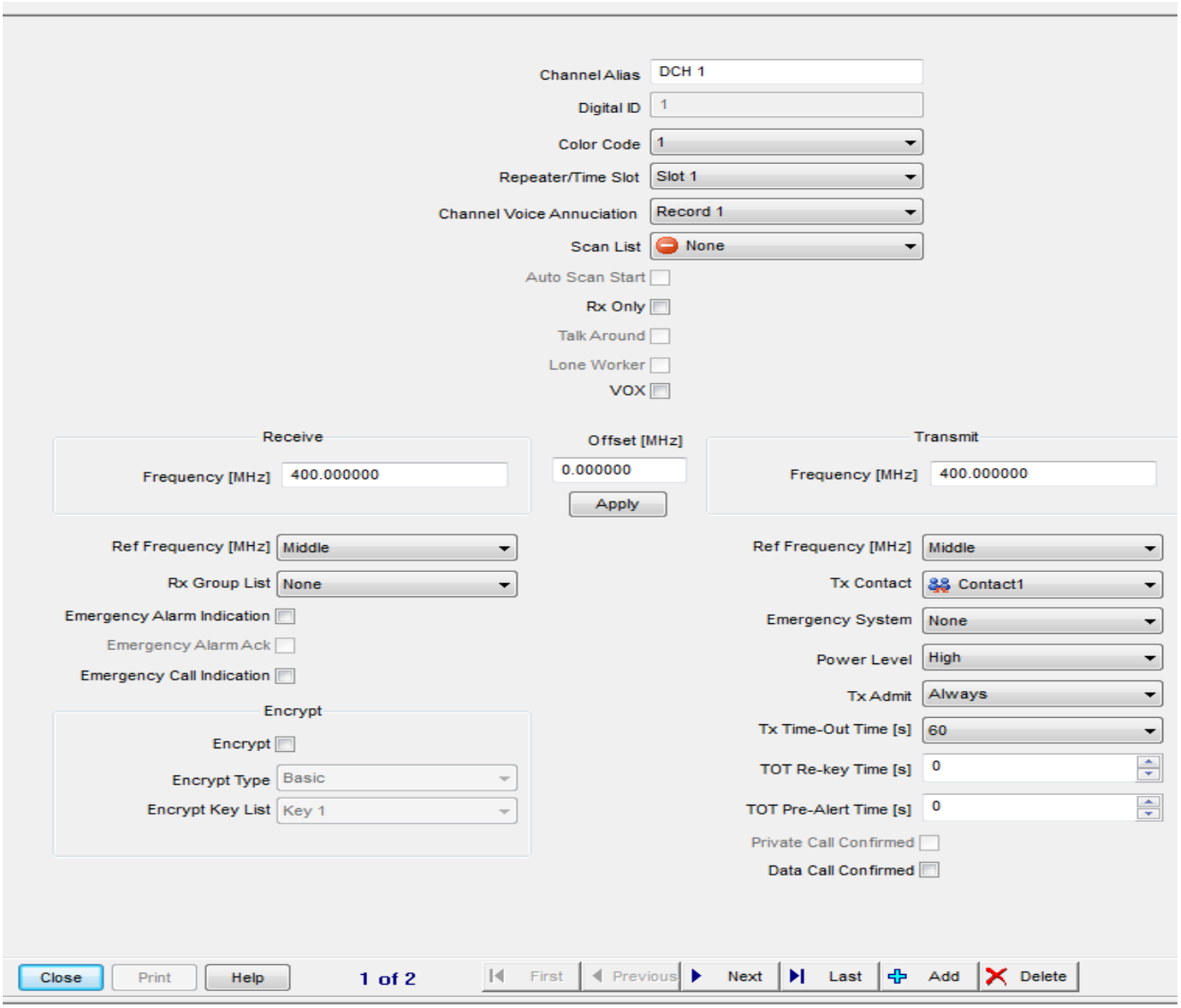
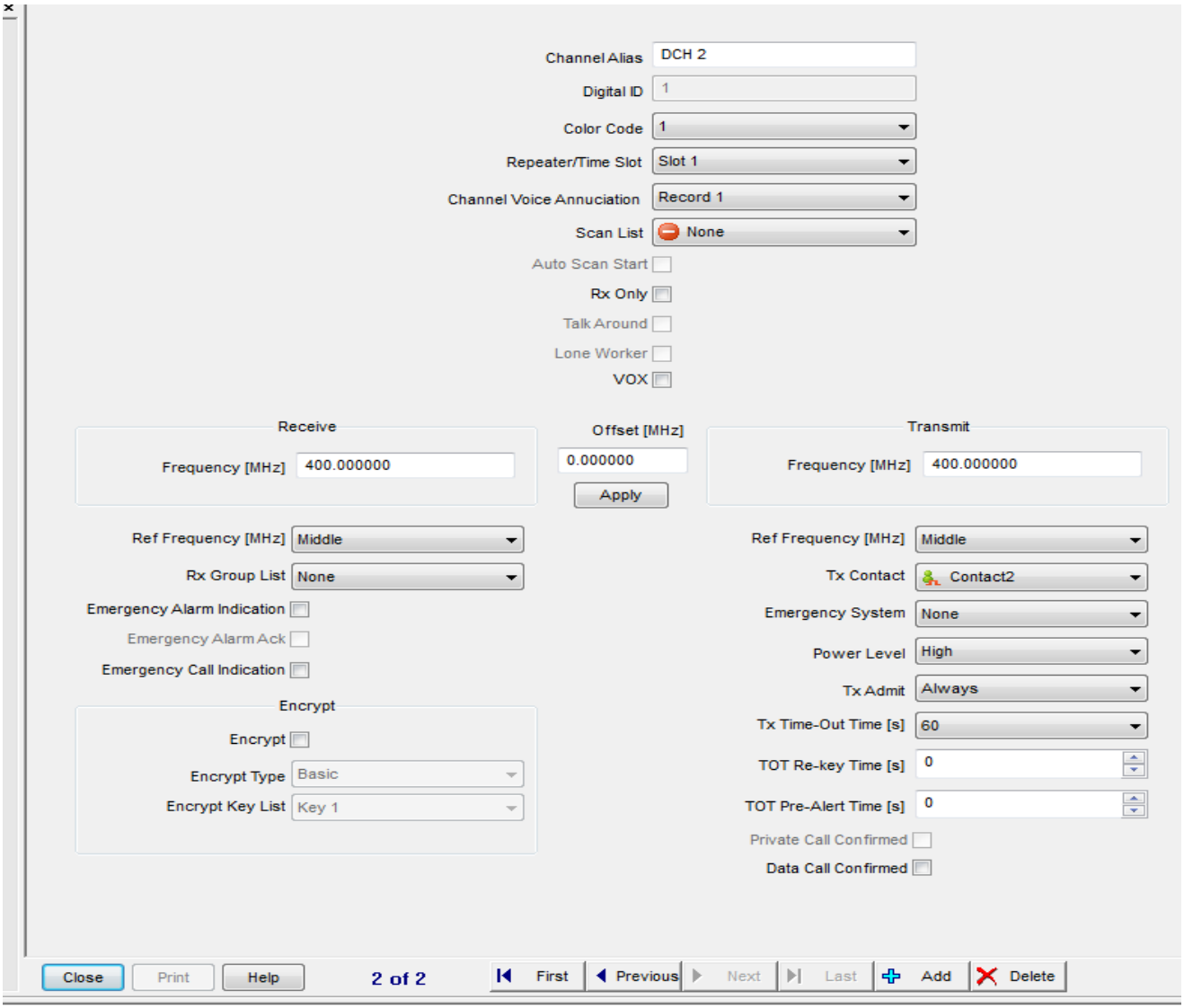
MERGING A NEW CONTACT LIST INTO AN EXISTING CODEPLUG

This application note will show a problem of merging a new contact list in an existing code plug using the import and export functions of the CPS. This applies to the CS800, CS801, and CS800D

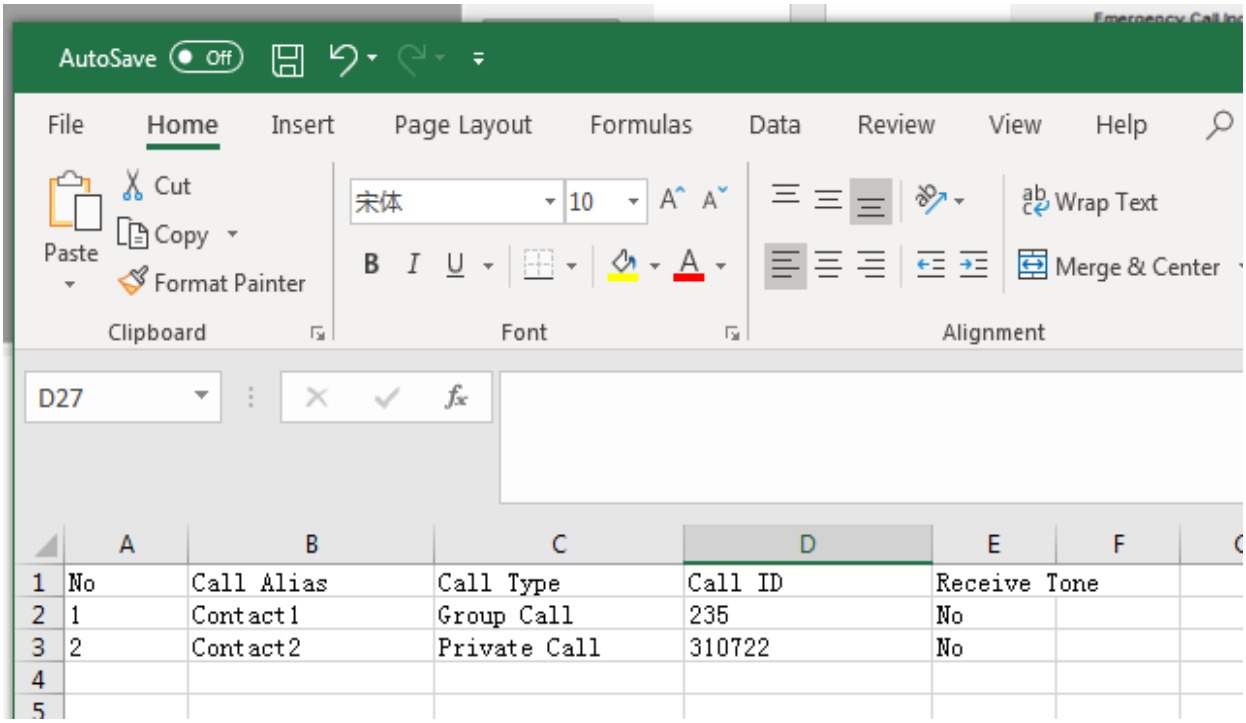
For the next three pictures, you will see this radio has contact 1 and contact 2 in channels 1 and channel 2 respectively.




Channel Alias
DCH 1
Digital ID
1
Color Code
1
Repeater/Time Slot
Slot 1
Channel Voice Annuciation
Record 1
Scan List
None
Auto Scan Start
Rx Only
Talk Around
Lone Worker
VOX
Receive
Frequency [MHz]
400.000000
Offset [MHz]
0.000000
Apply
Transmit
Frequency [MHz]
400.000000
Ref Frequency [MHz]
Middle
Rx Group List
None
Emergency Alarm Indication
Emergency Alarm Ack
Emergency Call Indication
Encrypt
Encrypt
Encrypt Type
Basic
Encrypt Key List
Key 1
Ref Frequency [MHz]
Middle
Tx Contact
Contact1
Emergency System
None
Power Level
High
Tx Admit
Always
Tx Time-Out Time [s]
60
TOT Re-key Time [s]
0
TOT Pre-Alert Time [s]
0
Private Call Confirmed
Data Call Confirmed
Close
Print
Help
1 of 2
First
Previous
Next
Last
Add
Delete

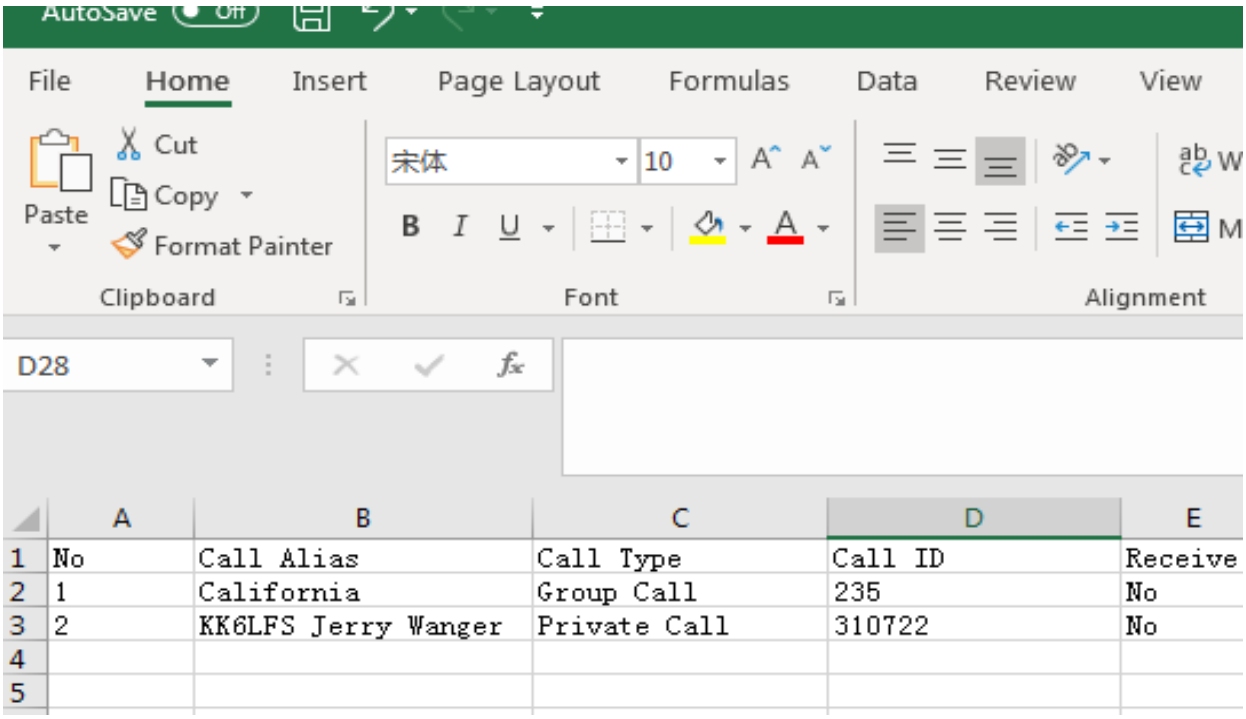

Channel Alias
DCH 2
Digital ID
1
Color Code
1
Repeater/Time Slot
Slot 1
Channel Voice Annuciation
Record 1
Scan List
None
Auto Scan Start
Rx Only
Talk Around
Lone Worker
VOX
Receive
Frequency [MHz]
400.000000
Offset [MHz]
0.000000
Apply
Transmit
Frequency [MHz]
400.000000
Ref Frequency [MHz]
Middle
Rx Group List
None
Emergency Alarm Indication
Emergency Alarm Ack
Emergency Call Indication
Encrypt
Encrypt
Encrypt Type
Basic
Encrypt Key List
Key 1
Ref Frequency [MHz]
Middle
Tx Contact
Contact2
Emergency System
None
Power Level
High
Tx Admit
Always
Tx Time-Out Time [s]
60
TOT Re-key Time [s]
0
TOT Pre-Alert Time [s]
0
Private Call Confirmed
Data Call Confirmed
Close
Print
Help
2 of 2
First
Previous
Next
Last
Add
Delete

Now I go to tools and “Export Digital Contact and I get the following excel spread sheet



	A	B	C	D	E	F
1	No	Call Alias	Call Type	Call ID	Receive Tone	
2	1	Contact1	Group Call	235	No	
3	2	Contact2	Private Call	310722	No	
4						
5						

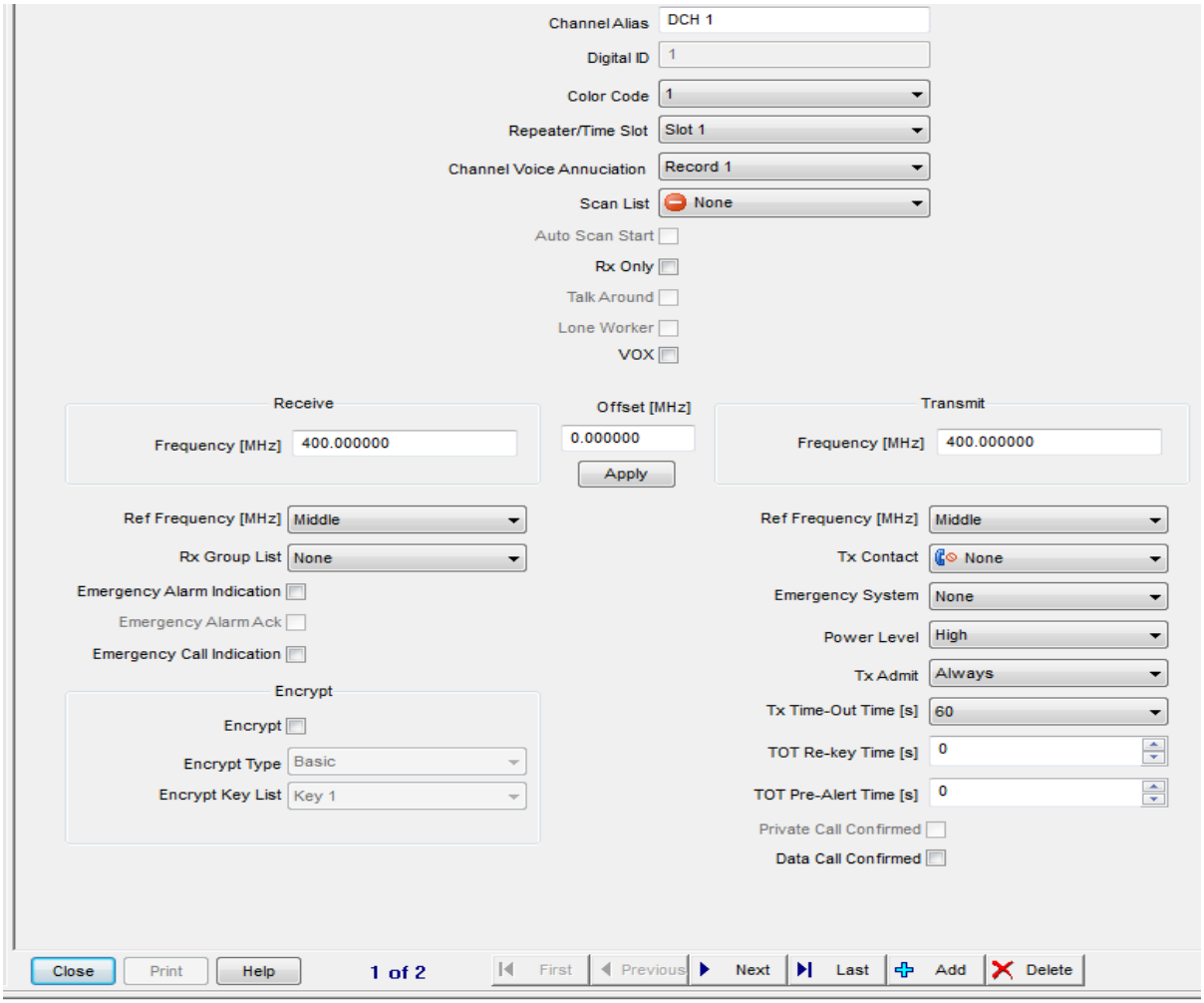
Now I change the call alias in the spread sheet as follows and save it.



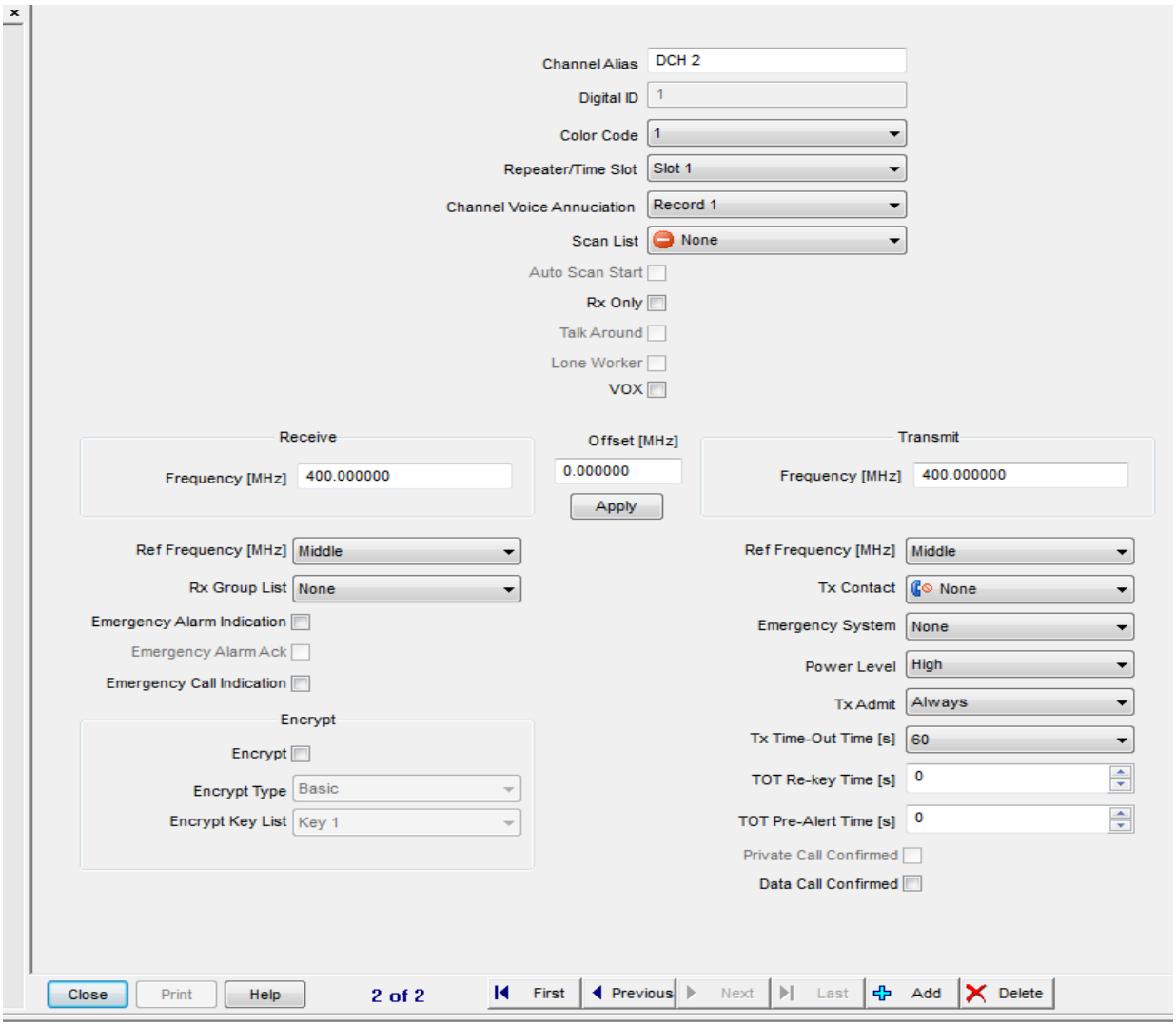
	A	B	C	D	E
1	No	Call Alias	Call Type	Call ID	Receive
2	1	California	Group Call	235	No
3	2	KK6LFS Jerry Wanger	Private Call	310722	No
4					
5					

Now I go back to the CPS and go to Tools followed by Import Digital Contact.

Now I look at the two channels again and I get the following:

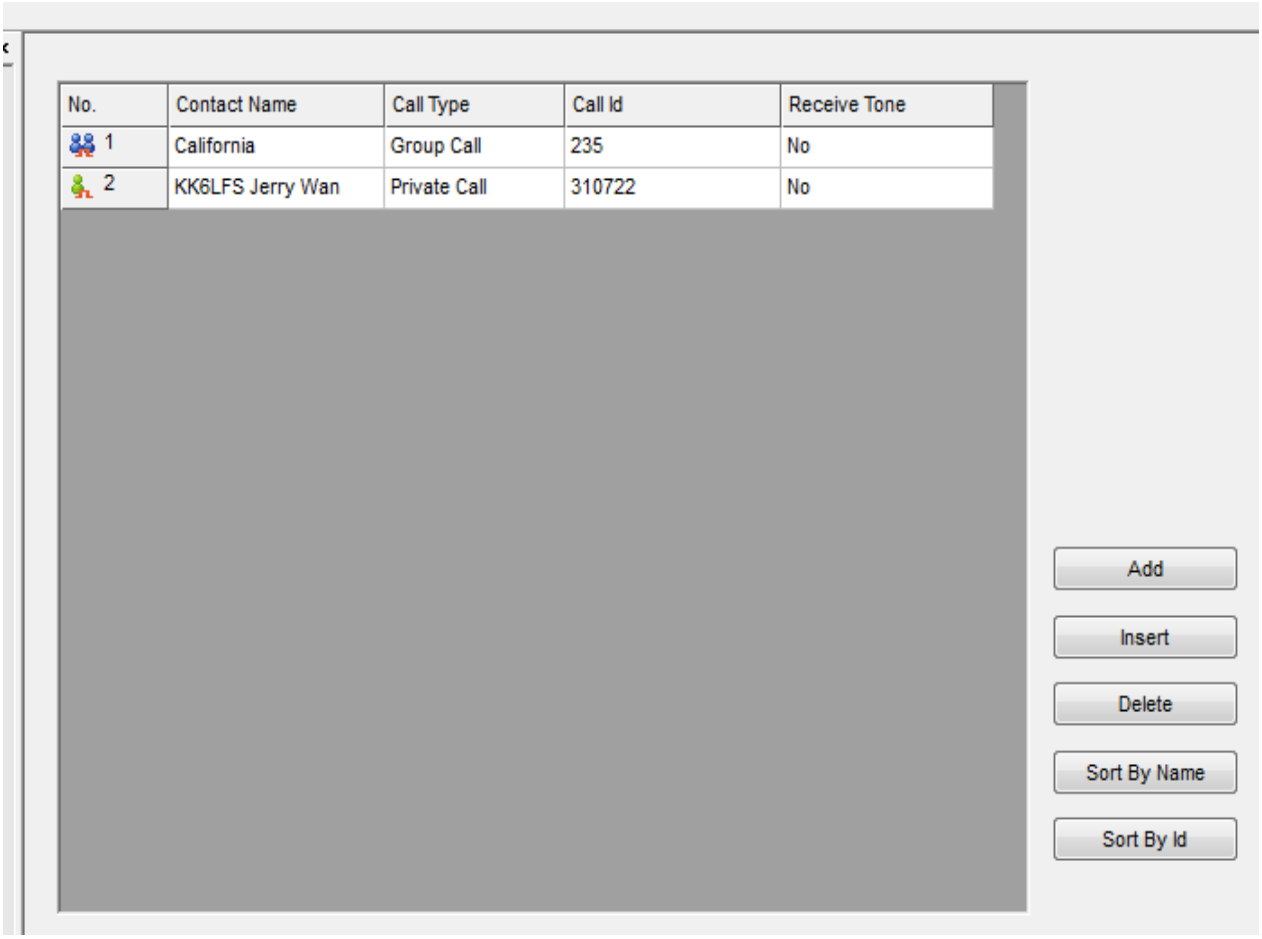


Notice the Tx Contact says “None” for Channel 1.



Notice the Tx Contact says “None” for Channel 2.

And the Tx Contact list is as follows:



Which agrees with what was changed.

The mistake is in the Tx Contact for the two channels. The Tx Contact should say “California” for channel 1 and “KK6LFS Jerry Wan” for channel 2.

This is not really a problem with the CPS but is a problem with how HAMS might use the system.

If you left the Contact Name the same but changed the Call Id, the results would be what you expect and there would be no reason the write this memo.

The reason this might be a problem is because in the HAM applications, the caller ID always stay the same, but the Contact Name occasionally changes. In commercial applications the reverse is often true. The people who wrote the CPS modeled It after the typical commercial applications.

There are two approaches to handling this problem. The first is to do nothing and after the merge, go back and fix all the channels that have the word “None” for the Tx Contact.

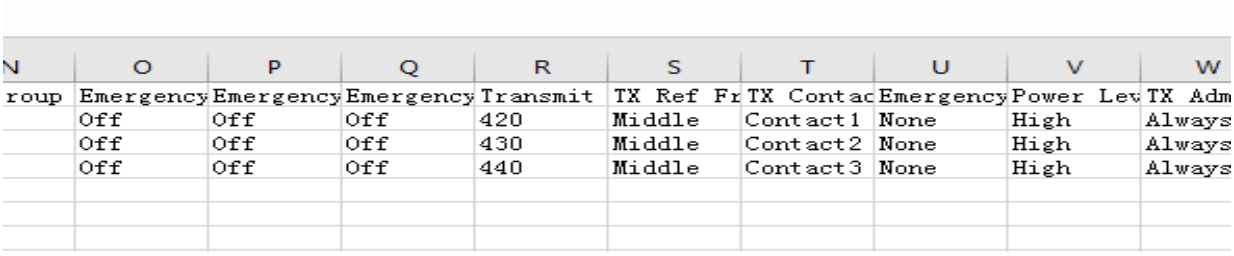
The second approach is to write a utility that will correctly merge the two for HAM applications. I will present the algorithm to do it.

For those people who know how to program, the algorithm presented could be implemented more efficient than the way I have shown. I was more interested in clarity than efficiency for this memo.

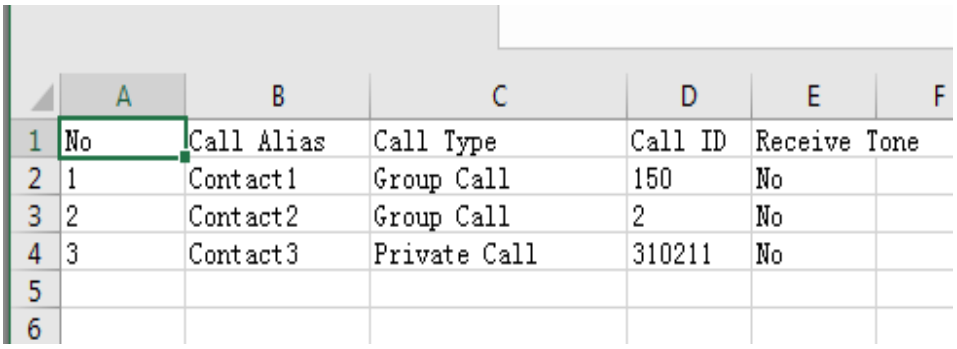
ALGORITHM FOR MERGING A NEW CONTACT LIST INTO AN EXISTING CODE PLUG

The method used is going to be shown for a code plug with three channels and multiple contacts. The method will work for 4000 channels and 130,000 contacts. The computational time might be significant if you have a system with the maximum number of channels and contacts.

Step 1. Export the channels and the contact list as shown below:

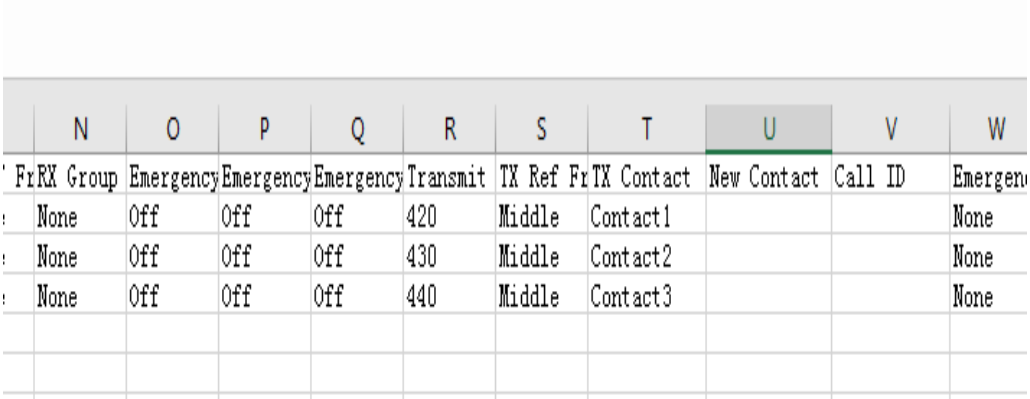


N	O	P	Q	R	S	T	U	V	W
roup	Emergency	Emergency	Emergency	Transmit	TX Ref Fr	TX Contac	Emergency	Power Lev	TX Adm
	Off	Off	Off	420	Middle	Contact1	None	High	Always
	Off	Off	Off	430	Middle	Contact2	None	High	Always
	Off	Off	Off	440	Middle	Contact3	None	High	Always



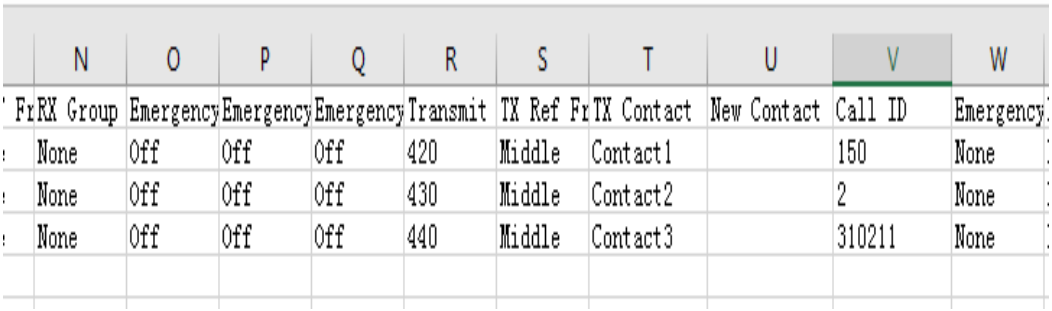
	A	B	C	D	E	F
1	No	Call Alias	Call Type	Call ID	Receive Tone	
2	1	Contact1	Group Call	150	No	
3	2	Contact2	Group Call	2	No	
4	3	Contact3	Private Call	310211	No	
5						
6						

Step 2. Add two new columns next to TX Contact and label them New Contact and Call ID as shown below.



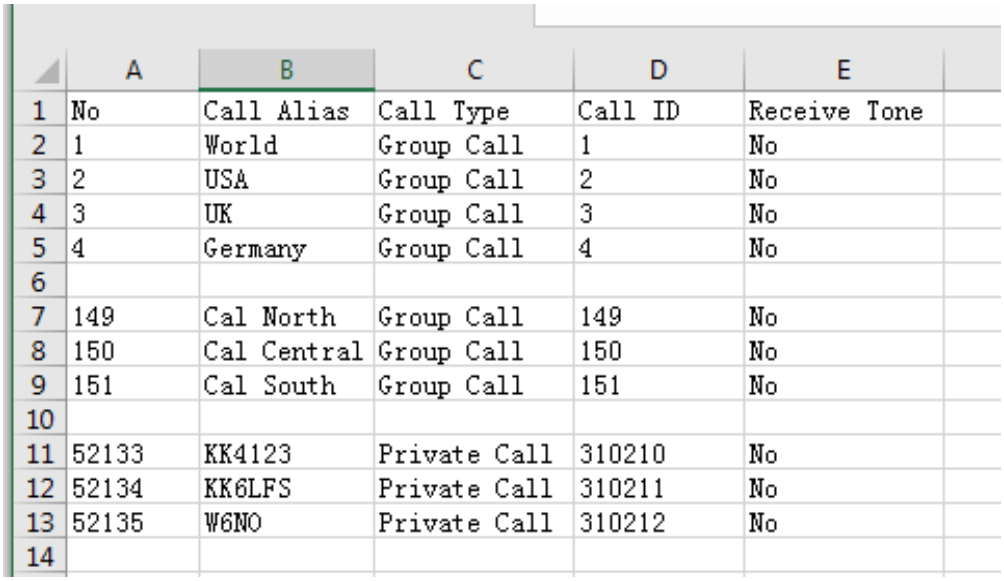
	N	O	P	Q	R	S	T	U	V	W
' Fr	RX Group	Emergency	Emergency	Emergency	Transmit	TX Ref Fr	TX Contact	New Contact	Call ID	Emergen
	None	Off	Off	Off	420	Middle	Contact1			None
	None	Off	Off	Off	430	Middle	Contact2			None
	None	Off	Off	Off	440	Middle	Contact3			None

Step 3. Merge the Caller ID from the other table into this table as follows:



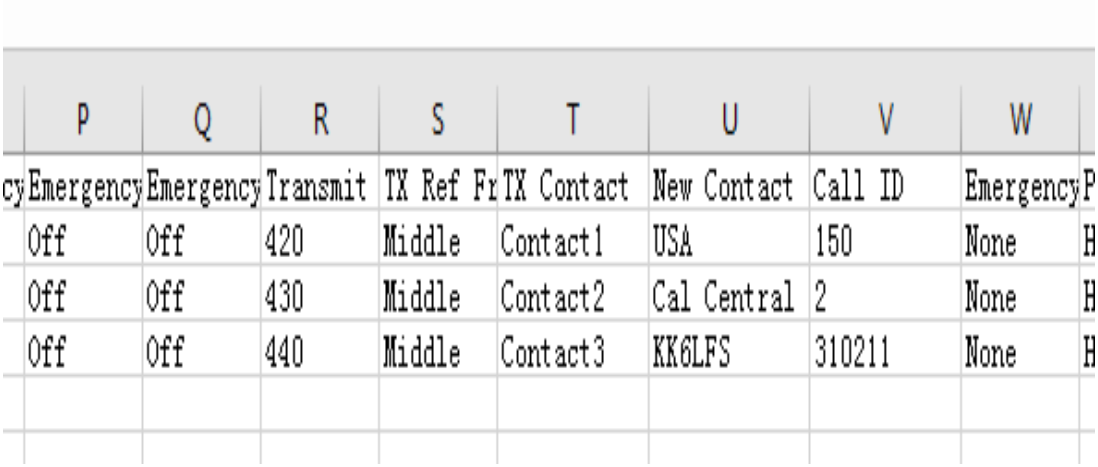
	N	O	P	Q	R	S	T	U	V	W
' Fr	RX Group	Emergency	Emergency	Emergency	Transmit	TX Ref Fr	TX Contact	New Contact	Call ID	Emergency
	None	Off	Off	Off	420	Middle	Contact1		150	None
	None	Off	Off	Off	430	Middle	Contact2		2	None
	None	Off	Off	Off	440	Middle	Contact3		310211	None

Step 4. Bring in the new contact list as follows:



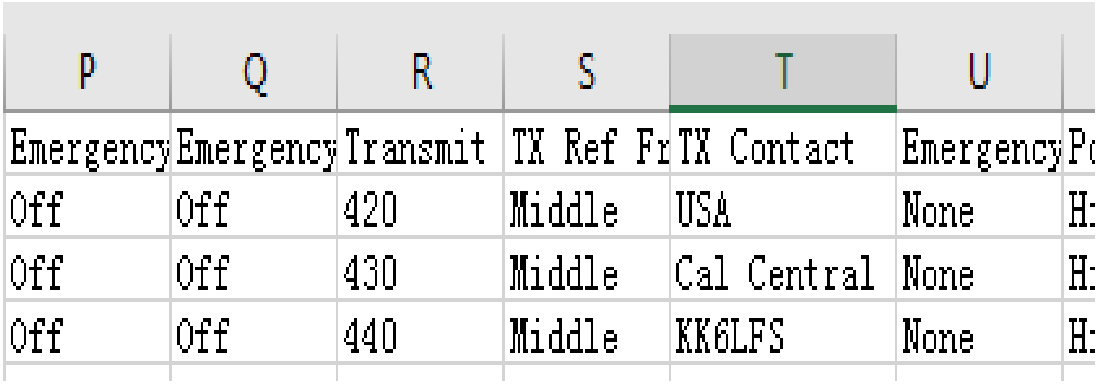
	A	B	C	D	E
1	No	Call Alias	Call Type	Call ID	Receive Tone
2	1	World	Group Call	1	No
3	2	USA	Group Call	2	No
4	3	UK	Group Call	3	No
5	4	Germany	Group Call	4	No
6					
7	149	Cal North	Group Call	149	No
8	150	Cal Central	Group Call	150	No
9	151	Cal South	Group Call	151	No
10					
11	52133	KK4123	Private Call	310210	No
12	52134	KK6LFS	Private Call	310211	No
13	52135	W6NO	Private Call	310212	No
14					

Step 5. Match the Call ID from the Channel list with the Call ID from the new Contact list and put the Call Alias from the new Contact list in the New Contact column of the Channel list as follows:



	P	Q	R	S	T	U	V	W	
cy	Emergency	Emergency	Transmit	TX Ref Fr	TX Contact	New Contact	Call ID	Emergency	P
	Off	Off	420	Middle	Contact1	USA	150	None	H
	Off	Off	430	Middle	Contact2	Cal Central	2	None	H
	Off	Off	440	Middle	Contact3	KK6LFS	310211	None	H

Step 6. Delete the TX Contact column, the Call ID column and rename the New Contact column to Tx Contact column as follows:



P	Q	R	S	T	U	
Emergency	Emergency	Transmit	TX Ref Fr	TX Contact	Emergency	P
Off	Off	420	Middle	USA	None	H
Off	Off	430	Middle	Cal Central	None	H
Off	Off	440	Middle	KK6LFS	None	H

Step 7. Import the new Contact list followed by the modified Channel list back into the CPS and you are done. The order is important.