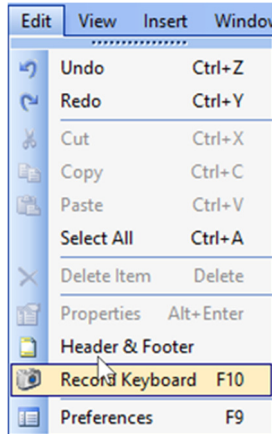# Creating your own keyboard shortcuts

1. The easiest way to begin creating shortcuts is to use the Macro Recording function.
2. Open a new tune file and create an empty staff line in 4/4 time.
3. Position the cursor in the first bar.

4. From the "Edit" menu select

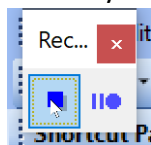5. This pops up the Macro recording dialog which consists of a couple of buttons. Stop recording and pause recording. At this point all keyboard activity is being recorded for play back by the shortcut.

6. Start by creating a short cut for the crunluath movement, one of the big movements both in music and size. The crunluath comes in many formats but there is a common component in most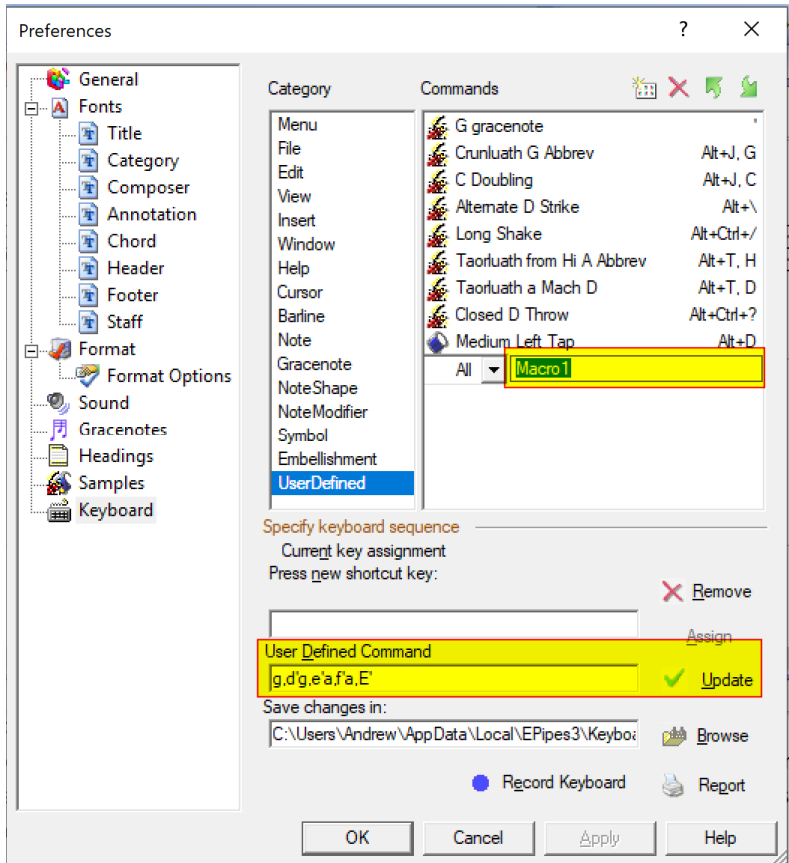 of them so let's start with that. The variations all start with the first melody note so we will leave that out for now. The common component are the 7 grace notes followed by the E semi-quaver. Begin recording here.

7. Make the low G grace note by pressing the 'Shift-L' keys. The note will appear on the score as normal.

8. Continue entering the other grace notes; 'Shift-D' for the D grace note (from here on grace notes will be written as lower case letters just as they are recorded as you will see soon).

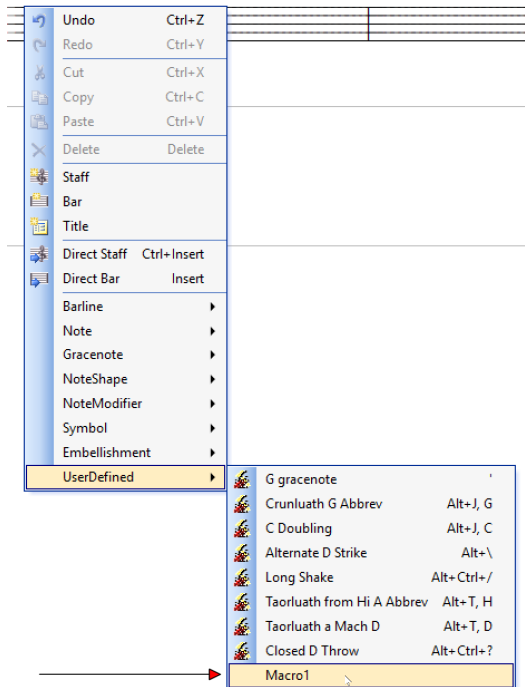9. Continue with 'l e a f a' keys. Then finally the E semi-quaver.

10. Click on the 'Stop' button on the Macro dialog box.

11. This pops up the 'Preferences' dialog box, already open at the Keyboard page. (This dialog can be opened at any time from the "Edit>Preferences" menu item or by pressing the 'F9' short cut key.)
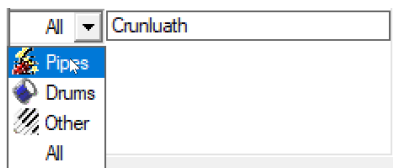
12.

13. There are two items to be aware of at this point. First the focus is set to the Commands name field where the word Macro1 is highlighted. This is where you name your shortcut. This name will appear in the context help window under the
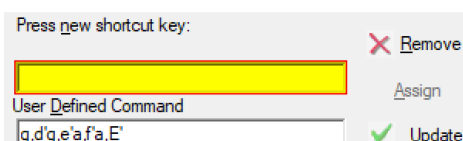

'UserDefined' option.

14. Back to the image in step 12. Enter a description for this shortcut. Obviously, we will use 'Crunluath'. On the left of this field is a dropdown list box showing the word 'All'.

Click the left mouse button on the dropdown arrow and select 'Pipes' from the list.
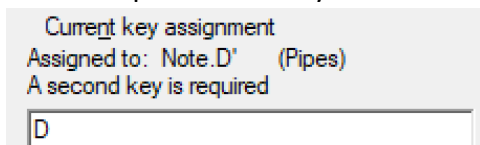

15. This will make the shortcut only available when entering piping scores. A crunluath makes no sense on a drum score. ☺

16. Now press **'Enter'**. This is an important step to save the actions we have just made. If we don't do this everything will look ok, but nothing is saved. This can be very frustrating if this step is missed. The dialog now looks like this.

17. The next item to fill in is the short cut sequence to be used to run this macro when composing a score. Click the left mouse button in the field above 'User Defined Command', marked in yellow above. This is where you enter the short cut keys.

18. The selection of a short cut is relatively important. A short cut can be made up of either a one or a two-key sequence. If you select a short cut that is already in use, Electric Pipes will show you what it is already assigned to above the 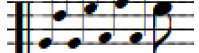field. Like this. It suggests a second key is required if you insist on using the key D as part of a short cut. Our recommendation is to not use a two key sequence unless the macros are related. I will explain shortly.

19. 'D' is in use so back space to clear the choice. Lets choose Alt+C as our shortcut. Makes sense, 'C' for Crunluath and it is not being used by anything else.

20. The next **important** step is to select the 'Assign' key to make the changes. Pressing 'Enter' here does not work because 'Enter' would be captured as a short cut key.

21. The Commands field should now look like , showing the short cut sequence on the right hand side.

22. The short cut is now ready for use. Click the 'Apply' button and/or the 'OK' button to save the short cut and return to the music window.

23. With the cursor positioned on the score press Alt+C and there is your crunluath. This is not the end of what you can do though. Read on.

24. Before we leave this section look at the sequence of commands the Macro recorder has supplied. The 'User Defined Command' field contains g,d'g,e'a,f'a,E' . This is not a puncuated field but a list of two-key sequence short cuts for the notes that have been entered. Electric Pipes 'knows' about notes from midd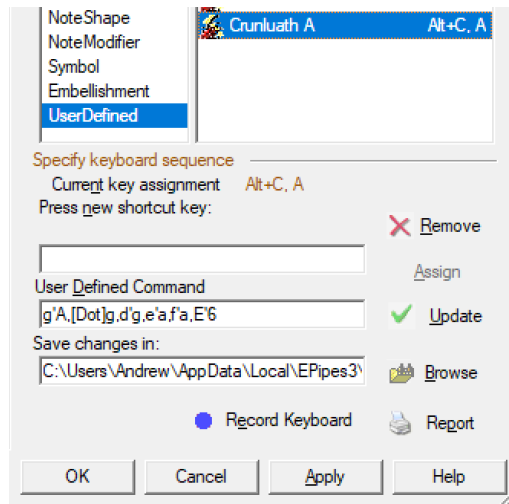le C to high B just under three octaves above. The notes used on the pipes are from G above middle C to high A in the next octave. To name notes in the first octave we use the note letter (UPPER CASE for melody note and lower case for grace note) followed by the comma ','. The next octave (which includes the rest of the piping notes) uses the note letter followed by the single quote '. The top octave (not used in piping) uses the note letter followed by a double quote ".

25. A word about how Electric Pipes names its notes. The melody notes are produced by pressing the note letter on the key board. All key boards show these keys in UPPER case so Electric Pipes defines the melody notes as UPPER case letters, *EVEN THOUGH* pressing these keys on the computer will generate a lower case letter in a document. We did this to make it faster to enter tunes. Tunes have more melody notes than grace notes so we didn't want to be pressing the SHIFT key all the time to get UPPER case letters. EPipes swaps them over for you.

26. Back to the 'User Defined Command' field. Notes to be entered in a short cut can be entered directly into this field in the preferences dialog if you find it easier.

27. The Crunluath revisited. We said above that a crunluath as many variations, beginning with a different melody note and always ending the same way. (Almost). We also talked about the possibility of a two-key short cut sequence. We can use this fact to create short cuts for all the crunluath by using the Alt+C to identify the crunluath (and make it easier to remember) and the melody note letter as the second key. And so we have a set of commands all related, beginning the same way with the Alt+C in a two-key stroke sequence.

28. Let's create a new short cut for the crunluath off low A. It begins

with a G grace note on dotted low A finished off with the rest of the common crunluath. Start the Macro recorder by pressing F10 or selecting the menu item "Edit>Record Keyboard". Now key in the notes (**NB** the note short cuts for piping don't use the two key sequence, just the single keys you are used to. The two-key sequence is what is saved in the short cut command) 'gA.ldleafaE6' and press F10 again, to stop recording.

29. In the 'Preferences' dialog that pops up, enter "Crunluath A" as your short cut name, select 'Pipes' from the dropdown and don't forget to press '**Enter**'.

30. Click the mouse in the short cut key field and enter the two-key sequence 'Alt+C ' and A and don't forget to click the '**Assign**' button which should now be enabled. It

should look like this. Note the short cut sequence 'Alt+C, A' next to the name in the Commands list and the 'User Defined Command' of g'A,[Dot]g,d'g,e'a,f'a,E'6. The [Dot] embedded in the command looks a bit odd. This is a short cut, the dot note modifier, being used in a short cut. (It could have been entered as [NoteModifier.Dot] but on some of these commands, like notes and modifiers the category string is left off to save room.)
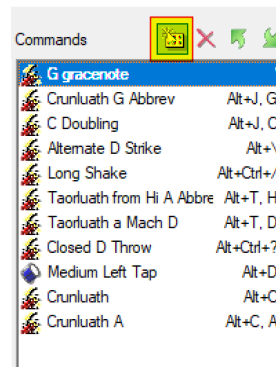
31. Click the 'OK' button and try the short cut out in the score.

32. Lets try a crunluath from high G. This time we will not use the Macro

    recording feature but enter the shortcut directly into the 'Preferences>Keyboard>User Defined' dialog.

33. Open the 'Preferences' dialog by pressing F9 or selecting the 'Edit>Preferences' menu item.

34. Select the 'Keyboard' page from the left hand list if it is not already selected and click on the 'UserDefined' category.

35. In the Commands list click the Insert button for a new short

    cut.

36. This will create a new list item like before [All ▼] [   ] for you to enter a new name and select the 'Pipes' option. Enter 'Crunluath G', select 'Pipes' from the dropdown and DON'T forget to press '**Enter**'.

37. We already know what short cut sequence we are going to use so we can enter that now. Type Alt+C and G in the short cut field and click on '**Assign**' button which is now enabled.
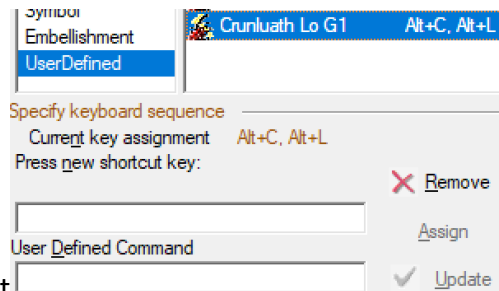
38. Now the 'User Defined Command' field. The easiest thing to do now is click back on the 'Crunluath A' command name to bring back that command, click into the 'User Defined Command' field and select and copy the command sequence.

39. Click back on the new 'Crunluath G' command and paste the sequence into the 'User Defined Command' field of this short cut. g'A,[Dot]g,d'g,e'a,f'a,E'6. All we have to do now is change the g'A at the beginning, to a'G, and press the '**Update**' button or the green tick button, to save the command. Click the 'OK' button to complete, and try it out.

40. A word about two-key short cut sequences. The time between key strokes is recorded. If you take too long to enter the second key, EPipes assumes you are not using the short cut and interprets the keys you pressed literally. If you take too long after pressing Alt+C to get to the G you will get a crunluath followed by a G melo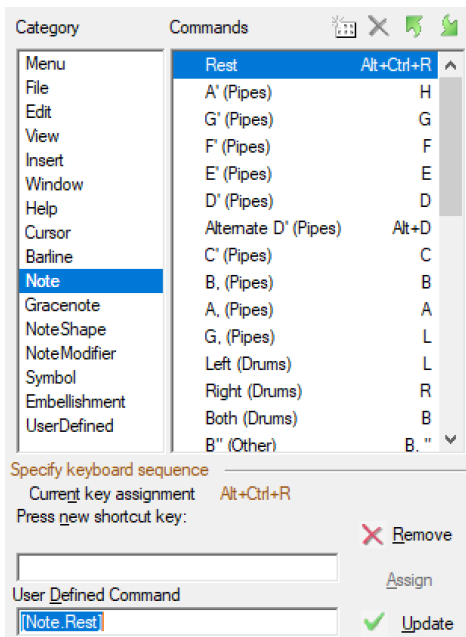dy note instead of the correct sequence. You can prevent this by not using an Alt+C as a one key sequence, like we did for just the crunluath command, but change it also to become a two-key sequence like 'Alt+C, Alt+C' for example. Or you can increase the time delay between key strokes by changing the "Preferences>General>Two key command delay time" option. Or use Alt+C, Alt+G as the shortcut thus saving time by not having to release the Alt key between strokes. The first option is probably the best.

41. Still another way to enter short cuts is this method. Repeat steps 33-37 above then proceed as follows. Let's do one o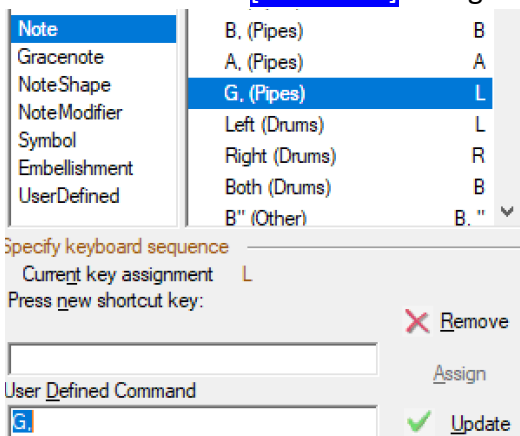f the low G crunluath variations so we are starting at this point I have chosen the short cut sequence Alt+C, Alt+L this time because the variation we will use has the low A grace notes and not low G grace notes. So, Alt+C (crunluath), Alt+L alternate low G variation.

- Here is where the method changes. Click the mouse in the 'User Defined Command' field. Now click the word Note in the category list to the left of the Commands list. This displays the commands for note entry and their abbreviations.
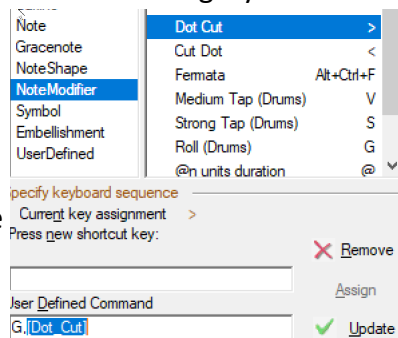
Already the 'User Defined Command' contains the words [Note.Rest]. This is the short cut for a rest which is already highlighted in the Commands list. While the [Note.Rest] is still highlighted click the "G, (Pipes)   L" command and the [Note.Rest] changes to G, but still highlighted.

The highlighted text is replaced by the new command. (**NB** The full name of the command "[Note.G,]" is not used to save space.) To enter the next note we must first remove the highlight, so click the mouse in the field after the text 'G,'. The highlight disappears leaving the cursor after the comma. We can now select the next command from the category-command lists.

42. The low G is dotted so select the 'NoteModifier' category and select "Dot Cut   >"
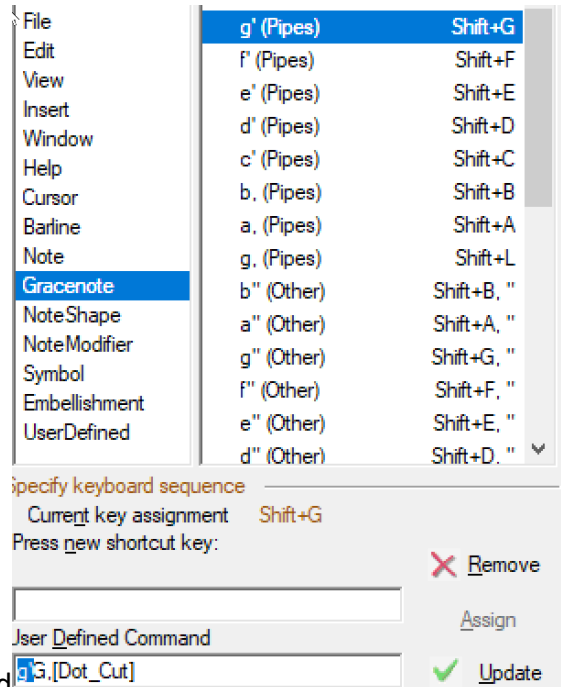

from the command list. We now have   and the 'User Defined Command" field now shows [Dot-Cut]. We choose dot-cut this time because EPipes will automatically dot the melody note before this command and cut the
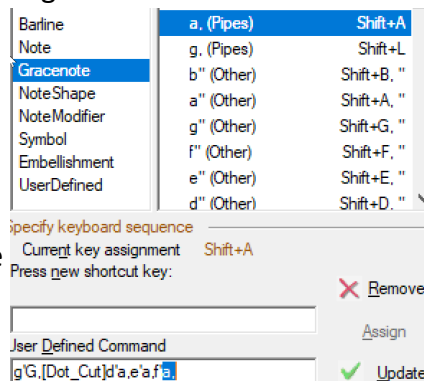
melody note after it. This means we don't have to modify the last E melody note of the crunluath like we did in the previous example.

43. We have actually made a mistake here as the low G crunluath begins on a G grace note and not the low G. All we have to do is position the cursor to the beginning of the "User Defined Command" field and select the 'Gracenote' category and the
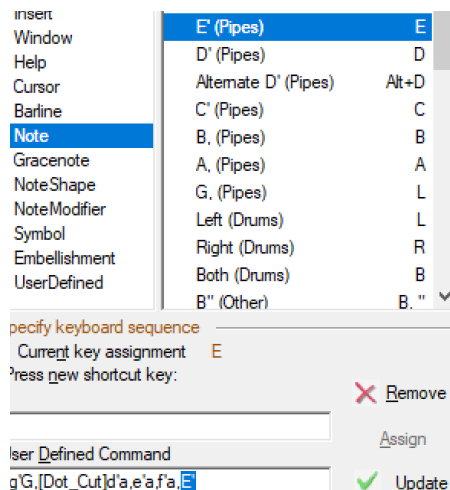

"g' (Pipes)   Shift+G" command The command field shows the g' at the beginning the line.

44. Click after the [Dot_Cut] text to remove the highlight and position the cursor for the next command. Select the next grace note which is a D. Continue in this manner until

the command field looks like
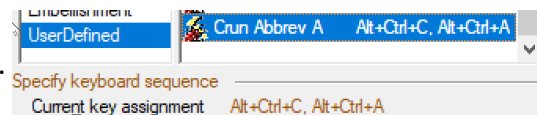
45. Finish off by selecting the Note E. No note modifier needs to be entered this time because the [Dot_Cut] command will take care of this for you.

46. Click the green tick or '**Update'** button and click '**OK'** to close the dialog. Try out the new command Alt+C, Alt+L.
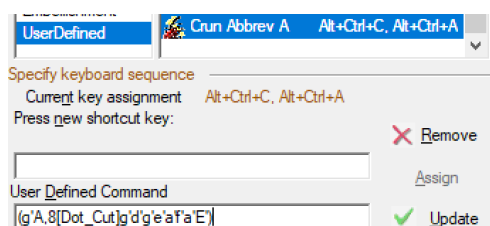
47. The other crunluath options are the abbreviations. These are displayed in Electric Pipes by showing the abbreviated note (in this case the first melody note of the movement) on the staff but not playing it and putting the played notes on the invisible staff behind the displayed staff. Entering these from the keyboard becomes quite fiddley so the option I'll use is similar to that above but with the added extension of invisible notes.

48. Perform steps 33-37 above. This time call the short cut "Crun Abbrev A" and the short cut sequence Alt+Ctrl+C, Alt+Ctrl+A.

49. Position the cursor in the "User Defined Command" field. Invisible notes, which are entered first, are enclosed in round brackets so enter the open round bracket '('. Now select or key in the notes for the movement and finally enter the closing round bracket.
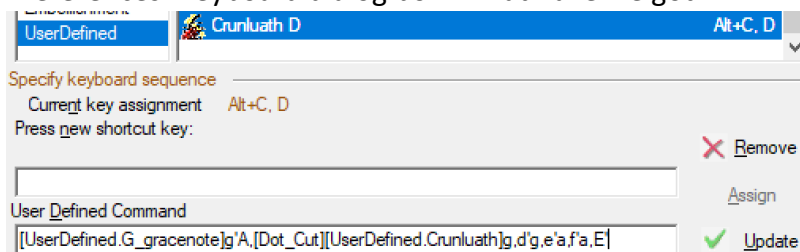
50. It should look like the this.

51. Anything entered now, after the closing round bracket, will be shown on the staff line. We want to enter an A crochet with the C symbol under it. To do that, make sure the cursor is positioned after the closing round bracket with no characters highlighted. Click the 'Note' category then the "A (Pipes)   A" command. Click the 'NoteShape' category then the " 4   ¼ -Crochet   4" command. Finally select the 'Symbol' category and the "Cee   Alt+Ctrl+3" command. Your command should now look like this "(g'A,8[Dot_Cut]g'd'g'e'a'f'a'E')A,4[Symbol.Cee]"

52. Don't forget to click the '**Update'** button or the green tick to save your new command.

53. Try out the new command Alt+Ctrl+C, Alt+Ctrl+A.

54. I mentioned above that a User Defined Command can contain another User Defined Command. Lets suppose we want to make another crunluath command but we already have the Alt+C command saved for just the common part of the crunluath. Why not use this when we are keying the new command in.

55. We are going to enter the crunluath from D using the Macro recording feature. Press F10 to open the Macro dialog. Enter the opening G gracenote using the User Defined Command for a grace note the ' key (Single quote). Now the dotted D quaver by pressing the D then the > key for the Dot-Cut command. The next bit is the common part of the crunluath which we already have as the Alt+C command so let's enter the Alt+C to finish the command.

56. Press F10 or Macro Stop button which stops recording and opens the Preferences>Keyboard dialog box. What have we got.

[UserDefined.G_gracenote]g'A,[Dot_Cut][UserDefined.Crunluath]g,d'g,e'a,f'a,E'

There is the [UserDefined.G_gracenote] command but right after it is the G grace note command. And again we have the [UserDefined.Crunluath] command and low and behold all the grace notes the make up the Crunluath. This is obviously a bug which I have discovered writing this paper. This will be fixed but in the mean time it still works if you edit off the extra notes and just leave the User defined command like this.

"[UserDefined.G_gracenote]A,[Dot_Cut][UserDefined.Crunluath]". A word of warning. If you use too many commands within commands you can't change one without affecting the other. So probably not a good practice. The other thing to do is notice where the command file is saved. It would be a good idea to copy this file and save it somewhere else. If you loose or corrupt the file you will loose all your new commands.

Happy programming. ☺

Cheers

Andrew.