

How to remove LPF and HPF data from an acoustic data set

When you first download data, you can avoid downloading HPF (high-pass filtered) data by selecting the original data option at the bottom of the data selection page of Oceans 2.0, or by specifying `dpo_hydrophoneDataDiversionMode=OD` when using the API. You will still need to remove the LPF (low-pass filtered) data using the steps below.

If you have already downloaded a data set and it contains LPF and HPF filtered data, you can follow these steps to remove the filtered data.

Program Requirements:

- GVim if you have Windows, Vim if you have Mac (<https://www.vim.org/download.php>)
- Excel
- Command line

Before Starting:

Make sure that there are no spaces in your folder names or file names, as unnecessary spaces will confuse the command line. Also, decide whether you would like to delete or move the filtered files. Moving the –HPF files involves slightly different steps than deleting them. Steps to move –HPF files instead of deleting them are on the next page.

LPF Steps, moving or deleting LPF files:

LPF data files have the same file naming convention as raw data files, but they have a smaller size.

1. Sort files by size in file manager
2. Select and delete/move all abnormally sized files (the size of LPF-filtered files is usually the same as that of regular files but an order of magnitude smaller)

HPF Steps, deleting –HPF files:

1. Move file folder to a location you can write the path to easily (C:\ is usually a good choice, or the letter assigned to your external hard drive if the data are saved externally)
2. Open the command line
3. Change directory to file folder by typing: "cd path" (e.g., cd C:\foldername\)
4. Type: "dir > list.txt /b" and hit Enter
5. Open file folder
6. Open the text file in a text editor and delete all lines that are not filenames
7. Save and close
8. Right click list.txt and click "edit with Vim"

9. Type the following command and hit Enter:
:`%g!/-HPF/d`

Note: the following steps operate on the same column of characters in every line. If Vim starts a new line while you are typing in insert mode, delete what you have typed, press esc, and enter the following command before continuing: set tw=1000

This command will change Vim's settings such that each line can contain a maximum of 1000 characters. If that is not long enough, enter the same command with a larger number.

10. Navigate to the top of the page. Click the first character at the top of the page.
11. Type the following commands:
 - Ctrl+q (+ as in press Ctrl and q at the same time)
 - Shift+g
 - Shift+i
12. Type "del path" (e.g., "del C:\data\") and press esc
13. File > saveas > filename.bat (use .sh file extension if on Mac. Don't worry that .bat is not an option in the file type drop down menu. Simply changing the extension in the filename will change the filetype when saving in Vim)
14. Double-click filename.bat in file folder if in Windows. If in Mac, go back to the command line and type "bash: filename.sh"
15. That's it! All of the -HPF files are now deleted

HPF Steps, keeping -HPF files but moving to another directory:

1. Move the file folder to a location you can write the path to easily (C: is usually a good choice, or the letter assigned to your external hard drive if the data are saved externally)
2. Make a destination folder for -HPF files in C: (or the letter assigned to your external hard drive)
3. Open the command line
4. Change directory to the file folder by typing: "cd path" (e.g., "cd C:\foldername\")
5. Type "dir > list.txt /b" and hit Enter
6. Open the file folder
7. Open the text file in a text editor and delete all lines that are not filenames
8. Save and close
9. Right click list.txt and click "edit with Vim"
10. Type the following command and hit Enter:
:`%g!/-HPF/d`

Note: the following steps operate on the same column of characters in every line. If Vim starts a new line while you are typing in insert mode, delete what you have typed, press esc, and enter the following command before continuing: set tw=1000

This command will change Vim's settings such that each line can contain a maximum of 1000 characters. If that is not long enough, do the same command with a larger number.

11. Navigate to the top of the page. Click the first character at the top of the page.
12. Type the following commands:
 - Ctrl+q (+ as in press Ctrl and q at the same time)
 - Shift+g
 - Shift+i
13. Type: "MOVE path" (e.g., "MOVE C:\foldername\") and press esc
The file list should now say "MOVE path\file.extension" for every file
(e.g., "MOVE C:\data\ICLISTENHF1251_20140104T134650.097Z-HPF.wav")
14. Repeat step 12
15. Use arrow keys to move to the end of the first line
16. Type "*space*C:\newfoldername\" and press esc, where *space* is 1 hit of the space key. The file list should now say "MOVE path\file.extension newpath" for every file
(e.g. "MOVE C:\data\ICLISTENHF1251_20140104T134650.097Z-HPF.wav
C:\data\HPFfiles\"")
17. File > saveas > filename.bat (use .sh file extension if on a Mac. Don't worry that .bat is not an option in the file type drop down menu. Simply changing the extension in the filename will change the filetype when saving in Vim.)
18. Double-click filename.bat in file folder if in Windows. If in Mac, go back to command line and type bash: filename.sh
19. That's it! All of the -HPF files are now in a different folder

Explanation of how this works

Goal of Vim editing is to have a text document that reads...

```
del currentfilelocation\filename1.extension
```

```
del currentfilelocation\filename2.extension
```

```
.
```

```
.
```

```
.
```

```
del currentfilelocation\filenamelast.extension
```

OR

```
MOVE currentfilelocation\filename1.extension filedestination
```

```
MOVE currentfilelocation\filename2.extension filedestination
```

```
.
```

```
.
```

MOVE currentfilelocation\filename.last.extension filedestination

Each line is a bash command that will delete that individual file or move it from its current location to the destination location. By using the visual block functions of Vim, we can write this command for every individual file without having to type it out as many times as we have files, and save the document as an executable file so that command line will execute each line in succession.

Command explanation glossary

Step 4.

cd – “change directory”

Step 5.

dir > list.txt /b

“Directory print filename.extension /bare (no additional info other than filename)”

Step 8.

:%g!/-HPF/d

“start command global opposite / lines containing “-HPF” / delete”

The ! denotes the opposite of what this function would usually do. So :%g/-HPF/d would delete all lines containing -HPF, whereas :%g!/-HPF/d deletes all lines NOT containing -HPF.

Step 11. for deleting, Step 12. for moving

ctrl+q (visual block – allows you to edit based on where the cursor is)

Shift+g (extend the visual block to the full document. Any edits you make will affect that position in every line)

Shift+i (insert text)

If at any point in Vim you make a mistake or get stuck, you can click edit > undo to undo a command. You can press esc to get out of different editing modes