forScore to MobileSheets Migration

Step-by-Step Instructions

This document contains the sequence of actions I took to migration from forScore to MobileSheets. If you are making the switch perhaps my experience can help you make the transition relatively smoothly.

What I did was document how I did it. I have not performed extensive testing on this process, so there may be errors. **Be sure to make backups!**

Also, I am a Linux guy with no access to a Windows or Mac PC. I believe that everything I've done will work on either Windows or a Mac. If someone tries it it would be good to advise any issues.

Alternative

I did end up creating two scripts, in Python, to replace the use of the Spreadsheets which these instructions are for. I feel that the Python scripts are easier to use, and are likely more reliable.

If you use the scripts you should still read **Section 3** in this document on how to do the exports from forScore. But then refer to the instructions @ https://github.com/JeffRocchio/forScoreMigration/tree/main/python#readme

Things to Know Before Getting Started

1. This process will transfer all your scores out of forScore and into MobileSheets, including each score's properties, or 'metadata,' that have set for all your scores.

2. Annotations will *not* get transferred over as in both apps that information is unique and there is currently no way to capture it out of forScore and translate it into MobileSheets.

3. forScore 'Bookmarks' will not get transferred over. The equivalent feature in MobileSheets is called '*Snippets.*' Since I only had a half-dozen bookmarks set across my 1,000+ scores in forScore it was easier for me to just recreate them manually once my transfer was complete.

   1. Note that in addition to Snippets MobileSheets has a "bookmarks" feature. In MobileSheets this feature functions like bookmarks do in a regular PDF document – it is a link to a single page within the document. So you can create a 'bookmark' to jump to that spot in a PDF. Depending on how you used bookmarks in forScore this feature may be useful to you, and there is a provision in MobileSheets for importing bookmarks by using a CSV file. You can consult the MobileSheets user manual if interested in using that.

4. forScore setlists can be transferred over in this process, and you can select which ones to transfer or not.

   1. **Note**: For successful setlist transfer *you cannot rename scores, or their titles,* after export from forScore. If you feel the need to clean up score titles you need to do that in forScore prior to beginning the migration process. If you do not plan on transferring any setlists over you could review and clean up score titles using the forScore exported metadata CSV document.

5. This process depends upon two applications:

   1. A spreadsheet. MS-Excel or Libre Office Calc. I am a Linux guy and do not have access to a Windows or Mac computer. **I used LibreOffice Calc**, which is freely available on all platforms. I don't see any reason that the **MS-Excel** version of the spreadsheet I saved out of LibreOffice won't work, and I'd be interested in a confirmation of that if anyone uses this process with Excel.

   2. A free utility called **ExifTool**. This utility will be used to process the metadata. ExifTool is freely available for use on Windows, Mac, and Linux.

Outline of the Process Steps

1. **Spreadsheet Application**. Be sure you have a spreadsheet application that is MS-Excel compatible.
   1. Meaning that MS-Excel formulas will work in it. I used the Open Source application Libre Office Calc. MS-Excel should work. Google Sheets might work as well.

2. **Acquire Exiftool**. Obtain and install ExifTool.
   1. Obtain @ https://exiftool.org/

3. **forScore Export**.

1. *Scores*. Export scores out of forScore and get them onto your desktop or laptop PC.

2. *Metadata*. Export the metadata out of forScore and get the exported CSV file onto your laptop or desktop PC.

3. *Setlists*. Export any setlists you wish to recreate in MobileSheets out of forScore and get those exported files onto your laptop or desktop PC.

4. **Metadata Transformation**.

   1. *Copy Metadata to Spreadsheet*. Copy the forScore exported metadata CSV rows/columns into the spreadsheet I created for this purpose.

   2. *Remove Bookmarks*. Remove rows that represent forScore 'Bookmark' entries.

   3. *Apply Transform Formulas*. Copy formulas in spreadsheet to match the number of forScore exported scores.

5. **Populate Scores with Metadata**.

   1. *Produce ExifTool CSV*. Export ExifTool/MobileSheets compatable CSV file from Spreadsheet.

   2. Set metadata into all scores by invoking ExifTool with the Spreadsheet produced CSV file.

6. **Score Import**. Import all scores into MobileSheets.

7. **OPTIONAL – Transfer forScore Setlists**

   1. *Setlist Transform*. import forScore exported setlist files into the Setlists Spreadsheet.

   2. *Create MobileSheets Import File*. Export .mss file from setlist Spreadsheet.

   3. *Import Setlists into MobileSheets*. Import .mss file into MobileSheets.

Step-by-Step Guide

0. Download Helper Files.

Before starting the process, download the Spreadsheets and ExifTool configuration file that you'll be using:

- First, create the temporary directory, two subdirectories, on your PC where all the action will take place.:

    - Create a directory named **forScoreMigration**

    - Inside that newly created directory create two subdirectories:
        - **/setlists**
        - **/scores**

- Goto https://github.com/JeffRocchio/forScoreMigration and download the following files into the **forScoreMigration/scores** directory:

    - **0300_MetadataTransformSpreadheet.xlsx** (if using Excel) or the .ods version if using LibreOffice.

    - **ExifTool_config**.

    - **0310_SetlistTransform.xlsx** or 0310_SetlistTransform.ods

- At the same web page as above, download the following file into the **forScoreMigration/setlists** directory:

    - **0310_SetlistTransform.xlsx** or 0310_SetlistTransform.ods.

1. Spreadsheet Application.

Be sure you have a spreadsheet application that is MS-Excel compatible. Meaning that MS-Excel formulas will work in it. I used the Open Source application Libre Office Calc. MS-Excel should work. Google Sheets might work as well. I don't feel a need to say anything more about this as I think everyone on the planet has used Excel or some sort of Spreadsheet application.

2. Acquire ExifTool.

Obtain and install ExifTool. Goto https://exiftool.org/ and follow the instructions to install ExifTool for your Laptop or Desktop PC.

For Windows, be sure to read the instructions @ https://exiftool.org/install.html on how *to install exiftool for use from the command line*.

You should probably test usage of ExifTool to be sure you can use it on your PC to populate metadata into a PDF using the command line. This is not difficult, but carrying over the metadata from forScore totally depends on ExifTool, so there is no point in proceeding until you are sure this is installed and working for you.

So to test the install, make, or create a copy of some PDF file and put it in some temporary location (like, maybe your 'downloads' folder). Let's say you named the PDF file Test-Exiftool.pdf. For your particular operating system open a terminal session, CD into the directory where you put the test PDF file, and execute the following command:

```
exiftool -all:all Test-Exiftool.pdf
```

When you run this command you should see a bunch of information about the PDF document, including some metadata such as "Creator," "Producer," and such. If you get an error you will need to consult the exiftool website to try and resolve it.

3. forScore Export.

1. Scores.

I have found that the best way to 'export' scores from forScore is to simply use the iPads file manager. In the file manager you will see a directory forScore. Tap on that directory and you will see all your scores. In my case, all 1,197 of them.

So simply copy all those documents to your ***forScoreMigration/scores*** directory on your PC. The easiest way to do this is by using a cloud service accessible from both your iPad and your PC. In my case this is Dropbox. (I've never done it, but I imagine there is some way to copy files off an iPad and onto a USB stick. But as I've said, I'm using Dropbox for this.) So:

- On your iPad I go into the file manager.
- Tap on the forScore folder.
- Tap 'Select' in the menu at the top of the screen.
- Tap 'Select All' in the menu.
- Tap 'Share' at the bottom left of the screen.
- Select 'Save to Dropbox.' (OR your cloud provider or USB stick?)
- Select the ***forScoreMigration/scores*** directory you earlier created.
- All the scores will now upload. Obviously, this may take some time.

As necessary get these exported files onto your laptop or desktop PC. If are using Dropbox, or other cloud storage provider, then after a few minutes of sync time they should all just magically appear. But based on if you used some other way to get the files off the iPad, or if you have your cloud storage provider configured to not auto-sync new directories you may have to take some appropriate action to get the files onto your PC.

Make a Backup of Your Score Files.

Now that you have all your exported scores on your PC, make a backup! Copy them to some safe place you can get to if everything goes awry. A separate directory on your PC, somewhere in your cloud service. Onto a USB stick. Etc.

2. Metadata.

Export the metadata out of forScore and get the exported CSV file onto your laptop or desktop PC.

In forScore, using the 'suitcase' icon at the top right of the menu bar:

- Goto Backups.
- Tap the blue "scoll" at the top right of the popup window.
- Tap 'Export'
- Select 'Save to Dropbox.' (OR your cloud provider or USB stick?)
- Select the ***forScoreMigration/scores*** directory you earlier created.

3. Setlists.

Export any setlists you wish to recreate in MobileSheets out of forScore and get those exported files onto your laptop or desktop PC.

In forScore, tap on the Setlists icon in the menu bar. Then:

- Tap on 'Edit.'
- Select each setlist you wish to transfer over to MobileSheets.
- Then tap on 'share' in the tiny blue text right below the setlist popup title bar.
- Now, carefully, be sure you tap on the 3-dots in a circle in the lower right corner of the "Setlist Only" icon. This will open a new popup. In this popup:
  - Tap on format,
  - Select "Editable."
- Now tap on 'Share'
- Select location to save the export to. Ideally, save to your cloud storage provider so that it will then show up on your laptop or desktop PC. In my case I choose '*Save to Dropbox*.'
- Select which folder to place the setlist export files into.
  - I, of course, selected ***forScoreMigration/setlists***. (Since I also used Save to Dropbox above, after a few seconds it just automatically appeared on my desktop PC in that folder.)

Get Exported Files onto Your PC.

Having now created all the export files from forScore, they need get into the ***forScoreMigration/scores*** and the ***forScoreMigration/setlists*** directory on your PC.

As necessary get the exported files – the scores and the Export.CSV file - onto your laptop or desktop PC, into the ***forScoreMigration/scores*** directory. If are using Dropbox, or other cloud storage provider, then after a few minutes of sync time they should all just magically appear. But based on if you used some other way to get the files off the iPad, or if you have your cloud storage provider configured to

not auto-sync new directories you may have to take some appropriate action to get the files onto your PC.

If, like me, you used a cloud provider as you were exporting from forScore then the files may already be on your PC. If not, you will need to do whatever it is you would normally do to get files from your cloud storage provider, or your iPad / USB stick if went that way, onto your PC. I can't help you here as I use Dropbox for everything. Plus I am really an android user and only use my iPad for sheet music reading. So I don't really know anything useful about iPads.

Bottom line is that from this point forward you need to have the following directories and files on your PC:

- All exported forScore .**4ss setlist** files need be in: ***forScoreMigration/setlists***
- All exported forScore **.pdf scores** need to be in: ***forScoreMigration/scores***.

4. Metadata Transformation.

1. Copy Metadata to Spreadsheet.

Now you are going to take the metadata exported from forScore and copy it into the Spreadsheet I created for this purpose.

To do this;

- Open the ***0300_MetadataTransformSpreadheet*** Spreadsheet that is in your in: ***forScoreMigration/scores*** directory on your PC.
- Open the forScore exported CSV file – ***Export.csv***.
- You should get a popup dialog box that indicates you are opening a CSV file.
    - In this dialog you'll see options for what to use for the '**Separator**' character. **Be sure that 'comma' is checked**.
    - Uncheck any other options for separator.
    - Be sure **'Fixed Width' is also unchecked**. Then click OK to open the file.
- In the opened ***Export.csv*** file, select rows #2 down through however many rows are populated in the spreadsheet (there is one row for each score that you had in forScore, so if you had 1,000 scores, there will be 1,001 total rows in this spreadsheet.
    - Note that you *should not have row#1 selected*. This row contains column headings and we don't want to copy those over.
- After selecting the rows, do Edit / Copy.
    - Write down the bottom row number to have for the next steps. (E.g, if you last row with content in it was 1,001, write down that number).
    - Click into the opened ***0300_MetadataTransformSpreadheet*** and do the following:
    - Be sure you are in the tab there named "**forScore CSV Export,**"

- ○ Click into cell A2, do Edit / Paste.

- Now remove any rows that represent forScore "bookmarks."

    - ○ Depending on how many you have, you can just scan down column C in the ed **forScore CSV Export** tab of 0*300_MetadataTransformSpreadheet* and delete those rows.

    - ○ OR you can use Data filtering to show only those rows where Column C is 'nonblank.' After you remove any such rows, be sure to clear the filter so all remaining rows are again visible.

- Now you are going to copy formulas used generate the needed CSV output file for use with ExifTool. Go into the opened *0300_MetadataTransformSpreadheet* and do the following:

    - ○ Click into the "**IntermediateCalcs**" tab at the bottom of the spreadsheet. Then:

        - ▪ Click on Row-2 in left row-number column to select all of Row-2.

        - ▪ Do Edit / Copy.

        - ▪ Click into cell A3, and select down column A (*and only column A*) the same number of rows to match the highest row number you wrote down earlier.

        - ▪ Do Edit / Paste.

            - • What you are doing here is copying the formulas in row-2 down into each row of this worksheet to match up with all the rows that got copied into the "forScore CSV Export" tab.

    - ○ Click into the "**Metadata-Output**" tab at the bottom of the spreadsheet. Then you are going to do the sort of copying of formulas that you did in the prior step:

        - ▪ Click on Row-2 in left row-number column to select all of Row-2.

        - ▪ Do Edit / Copy.

        - ▪ Click into cell A3, and select down column A (*and only column A*) the same number of rows to match the highest row number you wrote down earlier.

        - ▪ Do Edit / Paste

    - ○ **SAVE** the *0300_MetadataTransformSpreadheet* spreadsheet file.

5. Populate Scores with Metadata.

1. Produce ExifTool CSV File.

With *0300_MetadataTransformSpreadheet* spreadsheet open:

- Click into the "**Metadata-Output**" tab at the bottom of the spreadsheet. Do this:

    - ○ Save this worksheet tab as a CSV file, in the directory where you have all your exported score documents, with the name 0500_Exiftool-Input.csv. So the path to the saved csv file will be: *forScoreMigration/scores/0500_Exiftool-Input.csv*.

        - ▪ For Libre Office Calc -

- • File / Save As / CSV. Give pathname as ***forScoreMigration/scores/0500_Exiftool-Input.csv***.

- • Accept the 'warning' about loss of formatting.

- • Accept the defaults on the next popup. In particular you want the Field delimiter to be a comma, and the String delimiter to be quote character.

- • Click on OK.

- • Click OK again on the next warning about saving only the active sheet (because this is exactly what you want.)

- ▪ For MS-Excel -

   - • See Microsoft instructions at https://support.microsoft.com/en-au/office/save-a-workbook-to-text-format-txt-or-csv-3e9a9d6c-70da-4255-aa28-fcacf1f081e6

   - • Take note in the above bullets for LibreOffice Calc on any warnings and options that MS-Excel offers with the csv save process. Esp re the comma, quote character; and that you only want to save the one tab (or so-called 'worksheet') not all the tabs.

   - • Save in the ***forScoreMigration/scores*** directory with the name ***0500_Exiftool-Input.csv***.

Now you can close all open Spreadsheets.

2. Set metadata into All Scores.

Now you are going to use the CSV file you created in the above step to populate the forScore metadata into each of the score's PDF documents. By doing this when you import all the scores into MobileSheets, that metadata will automatically get put into MobileSheets' metadata/properties fields for each score, thus carrying forward the metadata you had set in forScore.

To set the metadata into your scores you will use the ExifTool utility. Do this:

- • Open a terminal session and CD into the ***forScoreMigration/scores*** directory.

   - ○ Linux or Mac – I am going to assume you know how to do this.

   - ○ Windows: If you don't know how to do this, I'd suggest the web page @ https://www.lifewire.com/change-directories-in-command-prompt-5185508.

      - ▪ As I understand it you should be able to do this:
         - • On the Windows 11 or 10 search bar, type **cmd**.
         - • Select **Open**.
         - • Type **cd** followed by a space in the command prompt window.
         - • Drag and drop the folder you want to browse into the window.

- • In the terminal session, in the directory ***forScoreMigration/scores***, type the following command (It is word-wrapping here, but in the terminal make sure it is all on one line):

   - ○ `exiftool -config ExifTool_config -csv=0500_ExifTool-Input.csv -csvDelim ',' -overwrite_original *.pdf`

- If successful it will say '## image files updated' in the terminal window, where '##' is the number of score files.
    - If anything has gone wrong, you did make a backup copy of all your scores as noted in an earlier step – right? So you can try to work out any issue, delete the /scores directory, recreate it, copy your backup over to it, and try again.

6. Score Import. Import all scores into MobileSheets.

Now you are ready to import your scores into MobileSheets. This is the easy part.

If you are not using a cloud service with MobileSheets, do what you need to do to get all the scores that in the directory ***forScoreMigration/scores***, on your PC over to your iPad or Android device. I don't really know how to do that, so I'll leave that up to you.

Once you've copied all the scores over to your device, OR you are using a cloud storage service that is available in MobileSheets, open MobileSheets on your device. Do the following:

- From the library screen, tap on 'Import' in the upper right of the blue menu bar.
- Select where your scores are located. E.g., for me that is Dropbox.
- Select the directory. E.g., for me that is ***forScoreMigration/scores***.
- Tap the 3-dots menu in the upper right of your device's screen and then tap 'Select All.'
- Tap 'OK' at the bottom of the screen.
    - All your scores will come into MobileSheets, with the metadata. Of course, if you have a lot of scores, this may take awhile.

Score Import is Complete.

7. OPTIONAL – Transfer forScore Setlists

August-13, 2023: I have not yet completed the spreadsheet for this step. I have "manually" created the necessary .mss file from a forScore exported setlist file and successfully imported it into MobileSheets. So I know this will work.

In principle this should not be too difficult to create, so perhaps another week to get this done.

IF you do intend to do this once I have it completed it is critical that you don't alter any of the score filenames or Titles from within MobileSheets until after this step is completed. (You may go ahead and modify any other metadata. You can even create setlists and add scores to them while waiting – when importing setlists it will not remove any existing setlists, and it will not add duplicates to a preexisting setlist.)

1. Setlist Transform.

Here you will import each forScore exported setlist file into a setlists transform Spreadsheet that will transform forScore's exported files into a form that MobileSheets can import.

But first we need to combine all the separate setlist.4ss files that forScore exported into a single text file that we can bring into the 0310_setlistTransform spreadsheet. To do this we are going to use the terminal command line once again.

- In Linux --
  - Open a terminal and CD into the ***forScoreMigration/setlist*** directory.
  - Execute the following command:
    - `cat *.4ss > AllSetlists.txt`
- In Windows --
  - Again, see the information @ https://www.lifewire.com/change-directories-in-command-prompt-5185508.
  - As I understand it you should be able to use the command:
    - `cat *.4ss > AllSetlists.txt`
    - OR if the above fails, try this command: `type *.4ss > AllSetlists.txt`
- Open ***0310_SetlistTransform.ods(xlsx)***
- Open the concatenated file, ***AllSetlists.txt***, in ***forScoreMigration/setlist*** in the *SetList Input* tab of the ***0310_SetlistTransform*** spreadsheet.
  - As you do this **be sure that Separator Options are all unchecked**. We do not want any parsing of the data as it is imported. We want each line of the combined file to come into the worksheet in it's own row and in one column.
- Copy the content in column A
  - Click into cell A1, select all rows down Column A until all rows with content in them are selected.
  - Do Edit / Copy.
- Click into the open ***0310_SetlistTransform*** spreadsheet and paste the setlist info into it, starting at cell A1.
  - Click into cell A1
  - Do Edit / Paste
- Write down the highest row number that has content in it.
- Click into the "**IntermediateCalcs**" tab at the bottom of the ***0310_SetlistTransform*** spreadsheet Then:
  - Click on Row-2 in left row-number column to select all of Row-2.

- ○ Do Edit / Copy.

- ○ Click into cell A3, and select down column A (*and only column A*) the same number of rows to match the highest row number you wrote down earlier.

- ○ Do Edit / Paste.

  - ▪ What you are doing here is copying the formulas in row-2 down into each row of this worksheet to match up with all the rows that got copied into the "forScore CSV Export" tab.

  - ▪ Check to be sure that the last row, in column M shows: **</SetLists>.** If not, something is quite right. Try again.

- • Click into the "**MSS Output**" tab at the bottom of the spreadsheet. Then you are going to do the sort of copying of formulas that you did in the prior step – but note that, oddly enough, you'll start the copy with **Row-3** this time.

  - ○ Click on Row-3 in left row-number column to select all of Row-3.

  - ○ Do Edit / Copy.

  - ○ Click into cell A4, and select down column A (*and only column A*) the same number of rows to match the highest row number you wrote down earlier.

  - ○ Do Edit / Paste

- • **SAVE** the *0300_MetadataTransformSpreadheet* spreadsheet file.

2. Create MobileSheets Import File.

Export .mss file from setlist Spreadsheet.

With *0310_SetlistTransform* spreadsheet open:

- • Click into the "**MSS Output**" tab at the bottom of the spreadsheet. Do this:

  - ○ Save this worksheet tab as a text file, in the *forScoreMigration/setlists* directory, with the name 0510_Setlist-Import.mss. So the path to the saved text file will be: *forScoreMigration/setlists/0510_Setlist-Import.mss*.

    - ▪ The easiest way to do this is to use a text editor. In Windows, you can use Notepad. On Linux you for sure aready have your fav text editor. Mac – I'm sure there is one. Copy the content of Column A into the text editor:

      - • In your text editor of choice (Notepad, et. al.) open a new, empty file.

      - • Select all populated rows down column A in the tab "*MSS Output*" of the *0310_SetlistTransform* spreadsheet.

      - • Do Edit / Copy.

      - • Click into your opened text editor.

      - • Do Edit / Paste.

      - • Save the text editor file with the name *0510_Setlist-Import.mss*.

- *Alternatively* - for LibreOffice Calc -

  - File / Save As / CSV. Give pathname as ***forScoreMigration/setlists/0510_Setlist-Import.mss***.

  - Accept the 'warning' about loss of formatting.

  - Make sure to *clear any separator or string quote parameters offered in the Save As dialog.* You need to end up with a pure text file with no delimiters or added text quotations.

  - Click on OK.

  - Click OK again on the next warning about saving only the active sheet (because this is exactly what you want.)

    - Would be a good idea to open *0510_Setlist-Import.mss* in a text editor and inspect it to be sure it looks just like the contents in column A of the MSS Output tab of the *510_Setlist-Import.mss* spreadsheet.

- *Alternatively* - For MS-Excel -

  - For Excel I believe it is:

    - File / Save As / Text (Tab delimited) / SAVE.

    - Take note in the above bullets for LibreOffice Calc about Excel offering to use separator characters other than a tab. And also you don't want an quotes added.

    - Save in the ***forScoreMigration/scores*** directory with the name ***0500_Exiftool-Input.csv***.

Now you can close all open Spreadsheets.

3. Import Setlists into MobileSheets.

Import .mss file into MobileSheets.

Make the ***0510_Setlist-Import.mss*** file accessable to MobileSheets. If using a cloud storage provider, such as Dropbox, just make sure you have that service defined to MobileSheets in your device, and that the directory the import file is located in is also accessible from MobileSheets.

If you are using some other means, then do what you need to do to get the import file into your device so MobileSheets can see it.

In MobileSheets, simply tap on Import in the upper menu bar, locate the ***0510_Setlist-Import.mss*** file and tap 'OK." MobileSheets will build your setlists.

If any mismatches occur those scores will be skipped. But as long you haven't changed any score titles or filenames since the score import step you should be fine.