# KBFC Data Conversion – Standard Operating Procedure

## Accessing Files

1. At your KBFishC data user orientation, the PSMFC Data Team will provide you with the KBFC\_DataConversionFiles Zip folder which contains the Python data conversion script, a tutorial/SOPs, and the KBFC Data Templates that you will need to be successful converting your data to upload to KBFishC Data Portal, as well as the most recent copy of your data (which these scripts were written for).
2. Launch PyCharm (see Python/PyCharm install and setup tutorial, found online at: <https://www.kbfishc.org/about/kbfc-database/>, if needed).
3. In the Project Folder file navigation pane at the top left of the PyCharm user interface (you can open it by clicking the folder icon):
   * Unzip/extract all from the KBFC\_DataConversionFiles folder into your PyCharm projects folder (see software install tutorial for project folder setup/creation instructions).
     + Ex: My projects folder is named “PSMFC\_Scripts” as seen below

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1. Double check that your data source spreadsheet is in the unzipped folder.
   * If not, add your data source spreadsheet into “KBFC\_DataConversion\_<your org/project>Templates” folder.

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1. in the “KBFC\_DataConversion\_<your org/project>Templates” folder , double click on the Python script or .py file to open the script up in PyCharm.

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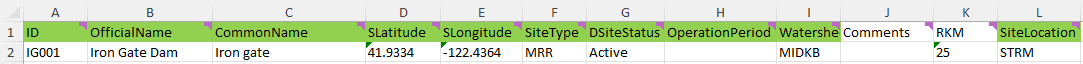
## Prep – Site and Project Information

1. Because the KBFishC database is modeled after PITAGIS, before running the Python script the Site and Project information tables must be completed in both the KBFC\_DataConversion\_Templates - KBFC\_Site, KBFC\_Project - and online in the KBFishC Data Portal Site and Project Tabs. More information can be found in the KBFC database tutorial <https://www.kbfishc.org/about/kbfc-database/>.
   1. Site and Project are parent records for the MRR Capture and Effort child records we will create with this script.
      1. The script will read the Site ID, Project ID, and OrganizationID from the KBFC\_Site and KBFC\_Project templates and associate them with the correct MRRCapture and Effort records
2. Open the KBFC\_DataConversion\_Templates - KBFC\_Site, KBFC\_Project - and add your project/organization’s information.
   1. Minimum Required Fields:
      1. KBFC\_Site: SiteID
      2. KBFC\_Project: ProjectID, OrganizationID
   2. If you aren’t sure what ID has been assigned to your Site/Project/Organization, you can check and see if this information has been added to the KBFishC Data Portal and copy them from there.
      1. If the information is not in the KBFishC data portal you will want to fill those tables out as well.
         1. More guidance on entering information into the KBFishC Data portal and required fields can be found in the KBFC database tutorial: <https://www.kbfishc.org/about/kbfc-database/>.

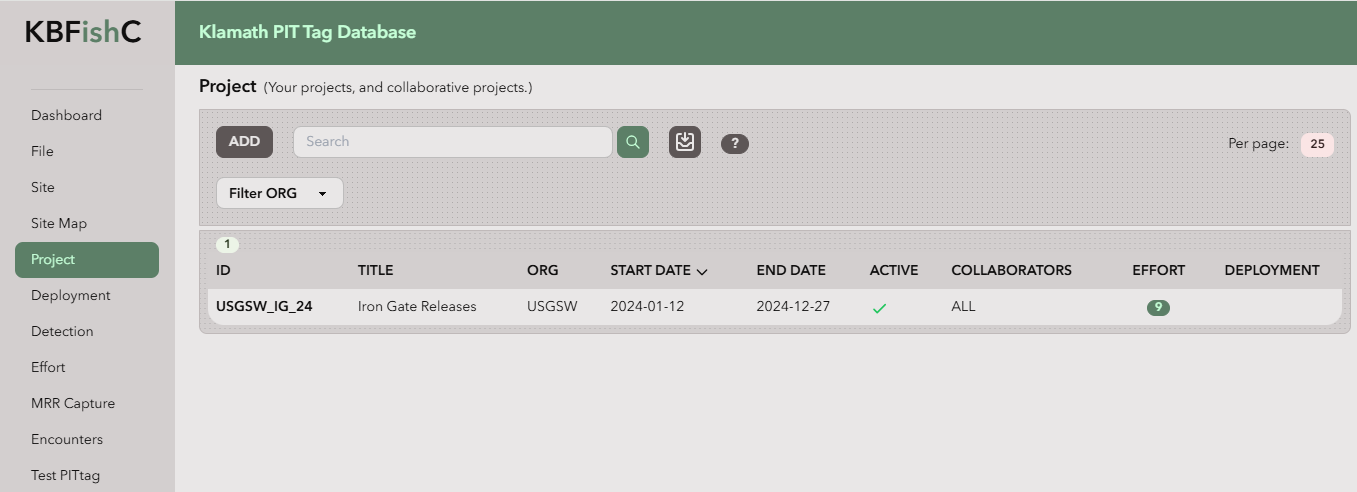
Example Site/KBFC\_Site Info in KBFishC & Excel Template:

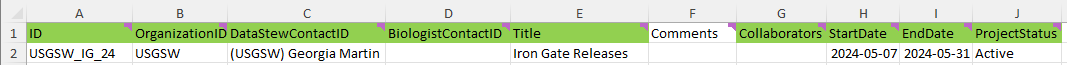
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Example Project/KBFC\_Project Info in KBFishC & Excel Template:





### Python Tip:

A comment is a section of code that is not processed when the script is run. Comments are typically used for designating instructions within a script or for debugging by temporarily deactivating code. You can comment lines of code in or out by putting a # pound symbol in front of them. You can also comment in/out by highlighting a section of code and typing 'ctrl' and '/'.

* In the below example the #grey text is the comment that explains that section of code and the colorful/white text is active code.

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## Python Script

1. Briefly, read through the script, there are comments and organization specific edits noted throughout the script in #grey text.
2. Before running the script, edit the project specific information:
   * **Copy/Paste the File Path:** From the Project folder navigation pane on the left, copy the file path for the “KBFC\_DataConversion\_<your org/project>Templates” folder by right clicking on the folder and selecting “copy Path/Reference…” and “Absolute Path”.

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* + Paste the file path into the basepath = r”<filepath>” section of the code

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* + Edit the file name of DataSource\_FilePath to match the file name and extension of your data source spreadsheet

Ex: DataSource\_FilePath = args.filename + r'\YourDataSourceFileName.xlsx'

WARNING: Be careful not to delete the “r” or the quotations around the file path or you will get an error message when you run the script.

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* + Edit the OrganizationID to match that of your org in KBFishC

Final\_EffortDF['ProjectID'] = ProjectDF.loc[ProjectDF['OrganizationID'] == '<YourOrgIDHere>', 'ID'].to\_list()[0]

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1. Run script by clicking the green play button at the top right of the PyCharm interface.

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1. If the script ran successfully, a terminal window will open at the bottom of the PyCharm interface saying that the process finished with zero exit code – meaning it ran with no errors.

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1. If the Script was unsuccessful, you hit what is called a bug or an error in the code and red text will appear in the terminal.
   * If this happened see “Python Tips & Debugging Common Errors” section.

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## Script Output – Completed Templates

1. The Python script that you just ran will write/export the converted data out into the “KBFC\_DataConversion\_<your org/project>Templates” folder as a new version of the “KBFC\_Effort” and “KBFC\_ MRRCapture” data templates with the date that you ran the script at the end of the Excel file name.

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1. Open the KBFC Data Conversion Templates for “KBFC\_Effort\_<CurrentDate>” and “KBFC\_ MRRCapture\_<CurrentDate>” (you can double click the files in the project folder navigation pane in PyCharm to open).
   * Check that your data was correctly converted.
   * If all looks good you can move into the data import tutorial provided by PSMFC and found online at: <https://www.kbfishc.org/about/kbfc-database/>.

## Python Tips & Debugging Common Errors

### Common Errors

1. File Path Error

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* 1. Check that you have copied/pasted the full and correct file path for the base directory or the “KBFC\_DataConversion\_<your org/project>Templates”.
  2. Check that the file name and path for your data source is correct.
  3. Check that the “r” and quotations are still in front of and around the file path ex. r”<filepath”

1. Column/Sheet Names Don’t Match
   1. Column Name Error:

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* + 1. Check that the column names in your data source and in the template sheets exactly match what was provided in the original zip folder from the PSMFC Data Team.
  1. Sheet Name Error:

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* + 1. Check that the Excel spreadsheet names for the sheet with your data in your data source exactly matches what was provided in the original zip folder from the PSMFC Data Team.