Convert_Excel_tp_Numpy

January 12, 2021

0.0.1 Imports

```
[2]: import pandas as pd
  import numpy as np
  import glob
  import multiprocessing as mp
  from tqdm import tqdm

[3]: load_path = '/home/18097367/notebooks/zero/Data:/Excel: 2020'
  save_path = '/home/18097367/notebooks/zero/Data:/2020_Numpy/'
  paths = glob.glob(load_path+"/*.xlsx")
```

0.0.2 Functies

```
[4]: def load_house(sheet, house):
         """Load the file and save the file."""
         dff = pd.read_excel(load_path + str(house) + '.xlsx', sheet_name=sheet,__
      ⇔engine="openpyxl")
         np.save(save_path + sheet + '_' + str(house), dff.values)
     def nParse3(n):
         """output a string that is 3 decimals long."""
         number = str(n)
         if len(number) == 1:
             number = "00" + number
         elif len(number) == 2:
             number = "0" + number
         elif len(number) == 3:
             number = number
         return str(number)
     def get_sheet_names(i):
         """Get the sheet names from the excel file."""
         return pd.ExcelFile(load_path + str(i) + '.xlsx',engine="openpyxl").
      \rightarrowsheet_names
```

```
[5]: for path in tqdm(paths[0:120]):
         house_number = path[-8:-5]
         df = pd.read_excel(path, engine="openpyxl", sheet_name=None)
         sheets_names = list(df.keys())
         for sheet in sheets_names:
             output_file_name = sheet + "_" + house_number
             np.save(save_path+output_file_name, df[sheet].to_numpy())
             print("House {} has {} sheets.".format(house_number, len(sheets_names)))
                    | 0/120 [00:00<?, ?it/s]
      0%1
    House 058 has 22 sheets.
      1%1
                    | 1/120 [02:23<4:44:03, 143.22s/it]
    House 058 has 22 sheets.
    House 083 has 22 sheets.
      2%1
                   | 2/120 [04:54<4:46:41, 145.77s/it]
```

```
House 083 has 22 sheets.
House 043 has 19 sheets.
  2%1
               | 3/120 [06:53<4:28:07, 137.50s/it]
House 043 has 19 sheets.
House 013 has 22 sheets.
```

```
3%1
               | 4/120 [09:00<4:19:41, 134.32s/it]
House 013 has 22 sheets.
House 034 has 22 sheets.
  4%1
               | 5/120 [11:13<4:16:57, 134.06s/it]
House 034 has 22 sheets.
  5%1
               | 6/120 [13:03<4:01:15, 126.98s/it]
House 060 has 22 sheets.
```

```
House 060 has 22 sheets.
  6%|
               | 7/120 [15:10<3:59:06, 126.96s/it]
House 074 has 22 sheets.
House 018 has 22 sheets.
```

```
House 018 has 22 sheets.
  7%1
               | 8/120 [17:06<3:50:54, 123.70s/it]
House 018 has 22 sheets.
  8%1
               | 9/120 [19:13<3:50:11, 124.43s/it]
House 028 has 22 sheets.
House 022 has 22 sheets.
```

```
House 022 has 22 sheets.
               | 10/120 [21:30<3:55:23, 128.40s/it]
House 022 has 22 sheets.
House 049 has 22 sheets.
  9%1
               | 11/120 [23:44<3:56:18, 130.08s/it]
House 049 has 22 sheets.
House 072 has 22 sheets.
 10%|
               | 12/120 [25:52<3:52:38, 129.25s/it]
House 072 has 22 sheets.
```

```
House 072 has 22 sheets.
House 096 has 22 sheets.
               | 13/120 [28:04<3:52:00, 130.10s/it]
 11%|
House 096 has 22 sheets.
House 096 has 22 sheets.
House 077 has 22 sheets.
```

```
House 077 has 22 sheets.
              | 14/120 [30:17<3:51:45, 131.18s/it]
House 077 has 22 sheets.
 12%|
              | 15/120 [32:11<3:40:22, 125.93s/it]
House 004 has 22 sheets.
House 067 has 22 sheets.
```

```
13%|
              | 16/120 [34:40<3:50:00, 132.69s/it]
House 067 has 22 sheets.
House 105 has 22 sheets.
              | 17/120 [36:45<3:43:59, 130.48s/it]
 14%|
House 105 has 22 sheets.
House 035 has 22 sheets.
              | 18/120 [39:03<3:45:33, 132.68s/it]
 15%
House 035 has 22 sheets.
House 035 has 22 sheets.
House 035 has 22 sheets.
```

```
House 035 has 22 sheets.
16%
              | 19/120 [40:57<3:34:18, 127.31s/it]
House 090 has 22 sheets.
House 091 has 22 sheets.
```

```
17%|
              | 20/120 [43:13<3:36:19, 129.79s/it]
House 091 has 22 sheets.
House 050 has 22 sheets.
 18%|
              | 21/120 [45:01<3:23:36, 123.40s/it]
House 050 has 22 sheets.
House 065 has 22 sheets.
              | 22/120 [47:22<3:29:51, 128.49s/it]
 18%
House 065 has 22 sheets.
House 065 has 22 sheets.
House 065 has 22 sheets.
```

```
House 065 has 22 sheets.
House 075 has 22 sheets.
19%|
              | 23/120 [49:34<3:29:18, 129.47s/it]
House 075 has 22 sheets.
20%|
              | 24/120 [51:41<3:26:10, 128.86s/it]
House 051 has 22 sheets.
```

```
House 051 has 22 sheets.
House 099 has 22 sheets.
21%|
              25/120 [53:52<3:25:03, 129.51s/it]
House 099 has 22 sheets.
 22%|
              | 26/120 [56:11<3:27:12, 132.26s/it]
House 055 has 22 sheets.
```

```
House 055 has 22 sheets.
House 089 has 22 sheets.
 22% |
              | 27/120 [58:24<3:25:15, 132.42s/it]
House 089 has 22 sheets.
              | 28/120 [1:00:21<3:16:17, 128.02s/it]
 23%|
House 032 has 22 sheets.
```

```
House 032 has 22 sheets.
House 027 has 22 sheets.
 24%|
              | 29/120 [1:02:25<3:12:11, 126.72s/it]
House 027 has 22 sheets.
House 036 has 22 sheets.
```

```
25%1
              | 30/120 [1:04:36<3:11:48, 127.88s/it]
House 036 has 22 sheets.
House 097 has 22 sheets.
              | 31/120 [1:06:47<3:11:06, 128.83s/it]
 26%
House 097 has 22 sheets.
House 010 has 22 sheets.
```

```
House 010 has 22 sheets.
House 010 has 22 sheets.
House 010 has 22 sheets.
27%
              | 32/120 [1:09:05<3:13:03, 131.63s/it]
House 010 has 22 sheets.
House 041 has 22 sheets.
28%1
              | 33/120 [1:11:20<3:12:21, 132.66s/it]
House 041 has 22 sheets.
House 101 has 22 sheets.
House 101 has 22 sheets.
House 101 has 22 sheets.
              | 34/120 [1:13:13<3:01:49, 126.85s/it]
 28%1
House 101 has 22 sheets.
```

```
House 101 has 22 sheets.
House 076 has 22 sheets.
 29%1
              | 35/120 [1:15:21<3:00:18, 127.28s/it]
House 076 has 22 sheets.
House 024 has 22 sheets.
```

```
House 024 has 22 sheets.
House 024 has 22 sheets.
House 024 has 22 sheets.
30%|
              | 36/120 [1:17:22<2:55:12, 125.15s/it]
House 024 has 22 sheets.
House 021 has 22 sheets.
              | 37/120 [1:19:31<2:54:41, 126.28s/it]
31%|
House 021 has 22 sheets.
House 008 has 22 sheets.
```

```
House 008 has 22 sheets.
             | 38/120 [1:21:38<2:52:54, 126.52s/it]
32%|
House 008 has 22 sheets.
House 008 has 22 sheets.
House 008 has 22 sheets.
House 062 has 22 sheets.
32%|
             | 39/120 [1:23:39<2:48:53, 125.10s/it]
House 062 has 22 sheets.
House 007 has 22 sheets.
```

```
House 007 has 22 sheets.
House 007 has 22 sheets.
House 007 has 22 sheets.
 33%|
             | 40/120 [1:25:43<2:46:21, 124.77s/it]
House 007 has 22 sheets.
House 078 has 22 sheets.
34%|
             | 41/120 [1:27:57<2:47:46, 127.42s/it]
House 078 has 22 sheets.
House 110 has 22 sheets.
```

```
House 110 has 22 sheets.
             | 42/120 [1:29:55<2:41:57, 124.58s/it]
House 110 has 22 sheets.
House 012 has 22 sheets.
36%1
             | 43/120 [1:32:04<2:41:45, 126.04s/it]
House 012 has 22 sheets.
House 081 has 22 sheets.
```

```
House 081 has 22 sheets.
House 081 has 22 sheets.
House 081 has 22 sheets.
 37%|
             | 44/120 [1:34:16<2:41:39, 127.62s/it]
House 081 has 22 sheets.
             | 45/120 [1:36:10<2:34:30, 123.61s/it]
 38%|
House 116 has 17 sheets.
House 053 has 22 sheets.
             | 46/120 [1:38:06<2:29:49, 121.48s/it]
 38%|
```

```
House 053 has 22 sheets.
House 026 has 22 sheets.
             | 47/120 [1:40:18<2:31:34, 124.58s/it]
39%1
House 026 has 22 sheets.
House 103 has 19 sheets.
```

```
House 103 has 19 sheets.
             | 48/120 [1:42:07<2:23:52, 119.89s/it]
House 103 has 19 sheets.
House 103 has 19 sheets.
House 103 has 19 sheets.
             | 49/120 [1:44:05<2:21:03, 119.21s/it]
41%1
House 084 has 22 sheets.
House 071 has 22 sheets.
             | 50/120 [1:46:08<2:20:28, 120.40s/it]
42%|
House 071 has 22 sheets.
```

```
House 071 has 22 sheets.
House 003 has 22 sheets.
42%|
             | 51/120 [1:48:18<2:21:37, 123.15s/it]
House 003 has 22 sheets.
House 108 has 22 sheets.
             | 52/120 [1:50:25<2:21:02, 124.45s/it]
43%1
House 108 has 22 sheets.
House 108 has 22 sheets.
House 108 has 22 sheets.
```

```
House 108 has 22 sheets.
House 054 has 23 sheets.
 44%|
             | 53/120 [1:52:29<2:18:42, 124.21s/it]
House 054 has 23 sheets.
House 045 has 22 sheets.
             | 54/120 [1:54:27<2:14:32, 122.31s/it]
 45%|
House 045 has 22 sheets.
```

```
House 045 has 22 sheets.
 46%|
             | 55/120 [1:56:19<2:09:09, 119.23s/it]
House 100 has 22 sheets.
House 019 has 22 sheets.
47%|
             | 56/120 [1:58:28<2:10:30, 122.34s/it]
House 019 has 22 sheets.
House 019 has 22 sheets.
```

```
House 019 has 22 sheets.
House 048 has 24 sheets.
 48%1
             | 57/120 [2:00:37<2:10:26, 124.23s/it]
House 048 has 24 sheets.
House 023 has 22 sheets.
 48%|
             | 58/120 [2:02:38<2:07:31, 123.41s/it]
House 023 has 22 sheets.
```

```
House 023 has 22 sheets.
House 061 has 22 sheets.
 49%|
             | 59/120 [2:04:40<2:04:46, 122.72s/it]
House 061 has 22 sheets.
House 115 has 22 sheets.
```

```
House 115 has 22 sheets.
House 115 has 22 sheets.
House 115 has 22 sheets.
50%1
             | 60/120 [2:06:51<2:05:26, 125.44s/it]
House 115 has 22 sheets.
House 030 has 22 sheets.
51%|
             | 61/120 [2:08:54<2:02:36, 124.69s/it]
House 030 has 22 sheets.
52%|
            | 62/120 [2:10:46<1:56:40, 120.70s/it]
House 107 has 22 sheets.
```

```
House 107 has 22 sheets.
House 047 has 22 sheets.
52%1
            | 63/120 [2:12:42<1:53:23, 119.37s/it]
House 047 has 22 sheets.
            | 64/120 [2:14:53<1:54:48, 123.01s/it]
53%|
House 079 has 22 sheets.
```

```
House 079 has 22 sheets.
House 088 has 22 sheets.
54%1
            | 65/120 [2:16:51<1:51:17, 121.41s/it]
House 088 has 22 sheets.
            | 66/120 [2:18:51<1:48:47, 120.88s/it]
55%|
House 017 has 22 sheets.
```

```
House 017 has 22 sheets.
            | 67/120 [2:20:56<1:48:03, 122.33s/it]
56%
House 033 has 22 sheets.
House 029 has 22 sheets.
            | 68/120 [2:22:58<1:45:42, 121.98s/it]
57%|
```

```
House 029 has 22 sheets.
House 080 has 22 sheets.
            | 69/120 [2:25:06<1:45:22, 123.98s/it]
57%|
House 080 has 22 sheets.
58%1
            | 70/120 [2:27:12<1:43:42, 124.45s/it]
House 064 has 22 sheets.
```

```
House 064 has 22 sheets.
            | 71/120 [2:28:53<1:35:49, 117.34s/it]
59% [
House 039 has 22 sheets.
House 014 has 22 sheets.
```

```
House 014 has 22 sheets.
60% I
            | 72/120 [2:31:01<1:36:37, 120.79s/it]
House 014 has 22 sheets.
House 014 has 22 sheets.
House 014 has 22 sheets.
House 069 has 22 sheets.
            | 73/120 [2:33:09<1:36:12, 122.81s/it]
61%|
House 069 has 22 sheets.
House 057 has 22 sheets.
```

```
House 057 has 22 sheets.
62%1
            | 74/120 [2:35:20<1:36:10, 125.44s/it]
House 057 has 22 sheets.
House 057 has 22 sheets.
House 057 has 22 sheets.
            | 75/120 [2:37:02<1:28:47, 118.38s/it]
House 031 has 23 sheets.
House 015 has 22 sheets.
```

```
House 015 has 22 sheets.
            | 76/120 [2:39:13<1:29:35, 122.16s/it]
House 015 has 22 sheets.
House 016 has 22 sheets.
            | 77/120 [2:41:20<1:28:27, 123.43s/it]
House 016 has 22 sheets.
65% I
            | 78/120 [2:43:10<1:23:37, 119.46s/it]
House 068 has 22 sheets.
```

```
House 068 has 22 sheets.
House 073 has 22 sheets.
            | 79/120 [2:45:15<1:22:42, 121.04s/it]
66% I
House 073 has 22 sheets.
House 020 has 22 sheets.
```

```
67%|
            | 80/120 [2:47:16<1:20:48, 121.20s/it]
House 020 has 22 sheets.
68% l
            | 81/120 [2:49:25<1:20:16, 123.51s/it]
House 109 has 22 sheets.
68% I
            | 82/120 [2:51:37<1:19:50, 126.06s/it]
House 001 has 22 sheets.
```

```
House 001 has 22 sheets.
House 005 has 22 sheets.
69%1
            | 83/120 [2:53:48<1:18:40, 127.59s/it]
House 005 has 22 sheets.
70%1
            | 84/120 [2:56:01<1:17:30, 129.17s/it]
House 085 has 22 sheets.
```

```
House 085 has 22 sheets.
House 038 has 22 sheets.
            | 85/120 [2:58:13<1:15:44, 129.84s/it]
71%|
House 038 has 22 sheets.
House 046 has 22 sheets.
           | 86/120 [3:00:11<1:11:40, 126.50s/it]
 72%|
```

```
House 046 has 22 sheets.
House 002 has 22 sheets.
           | 87/120 [3:02:30<1:11:31, 130.06s/it]
72%|
House 002 has 22 sheets.
           | 88/120 [3:04:36<1:08:44, 128.89s/it]
73%|
House 102 has 22 sheets.
```

```
House 102 has 22 sheets.
House 086 has 22 sheets.
           | 89/120 [3:06:48<1:07:03, 129.78s/it]
74%|
House 086 has 22 sheets.
           | 90/120 [3:08:49<1:03:38, 127.27s/it]
75%|
House 025 has 22 sheets.
```

```
House 025 has 22 sheets.
House 117 has 22 sheets.
           | 91/120 [3:10:58<1:01:42, 127.68s/it]
76%|
House 117 has 22 sheets.
House 040 has 22 sheets.
```

```
77%|
           | 92/120 [3:13:11<1:00:21, 129.34s/it]
House 040 has 22 sheets.
House 111 has 22 sheets.
           | 93/120 [3:15:22<58:28, 129.95s/it]
House 111 has 22 sheets.
House 112 has 22 sheets.
78%|
           | 94/120 [3:17:41<57:28, 132.65s/it]
```

```
House 112 has 22 sheets.
           | 95/120 [3:19:56<55:35, 133.41s/it]
79%|
House 044 has 22 sheets.
           | 96/120 [3:21:57<51:50, 129.60s/it]
80%1
House 059 has 23 sheets.
```

```
House 059 has 23 sheets.
House 063 has 22 sheets.
           | 97/120 [3:24:05<49:27, 129.04s/it]
81%|
House 063 has 22 sheets.
House 114 has 22 sheets.
```

```
House 114 has 22 sheets.
           | 98/120 [3:26:17<47:37, 129.90s/it]
82%|
House 114 has 22 sheets.
House 052 has 22 sheets.
82%|
           | 99/120 [3:28:23<45:04, 128.81s/it]
House 052 has 22 sheets.
House 042 has 22 sheets.
           | 100/120 [3:30:25<42:16, 126.82s/it]
83%|
House 042 has 22 sheets.
```

```
House 042 has 22 sheets.
84%|
           | 101/120 [3:32:31<40:02, 126.45s/it]
House 113 has 22 sheets.
House 011 has 22 sheets.
```

```
House 011 has 22 sheets.
           | 102/120 [3:34:36<37:51, 126.18s/it]
House 011 has 22 sheets.
House 066 has 22 sheets.
86%|
           | 103/120 [3:36:35<35:06, 123.91s/it]
House 066 has 22 sheets.
House 119 has 22 sheets.
```

```
87%|
           | 104/120 [3:38:43<33:20, 125.03s/it]
House 119 has 22 sheets.
           | 105/120 [3:40:48<31:15, 125.06s/it]
88%|
House 098 has 22 sheets.
House 106 has 22 sheets.
```

```
House 106 has 22 sheets.
House 106 has 22 sheets.
88% I
           | 106/120 [3:42:53<29:09, 124.98s/it]
House 106 has 22 sheets.
House 093 has 22 sheets.
89%1
           | 107/120 [3:45:05<27:35, 127.37s/it]
House 093 has 22 sheets.
House 056 has 22 sheets.
```

```
House 056 has 22 sheets.
House 056 has 22 sheets.
90%1
           | 108/120 [3:47:13<25:27, 127.29s/it]
House 056 has 22 sheets.
House 082 has 22 sheets.
91%|
           | 109/120 [3:49:14<23:02, 125.68s/it]
House 082 has 22 sheets.
House 104 has 22 sheets.
```

```
House 104 has 22 sheets.
House 104 has 22 sheets.
92%1
          | 110/120 [3:51:24<21:07, 126.73s/it]
House 104 has 22 sheets.
92%|
          | 111/120 [3:53:34<19:10, 127.81s/it]
House 006 has 22 sheets.
House 092 has 22 sheets.
```

```
House 092 has 22 sheets.
House 092 has 22 sheets.
93%1
          | 112/120 [3:55:52<17:25, 130.73s/it]
House 092 has 22 sheets.
94%|
          | 113/120 [3:57:49<14:47, 126.78s/it]
House 009 has 22 sheets.
House 094 has 22 sheets.
```

```
House 094 has 22 sheets.
House 094 has 22 sheets.
95%1
          | 114/120 [3:59:55<12:38, 126.42s/it]
House 094 has 22 sheets.
House 037 has 22 sheets.
          | 115/120 [4:02:07<10:40, 128.08s/it]
96%1
House 037 has 22 sheets.
House 118 has 22 sheets.
97%|
          | 116/120 [4:04:11<08:28, 127.09s/it]
House 118 has 22 sheets.
```

```
House 118 has 22 sheets.
98%|
          | 117/120 [4:06:17<06:19, 126.59s/it]
House 095 has 22 sheets.
House 120 has 22 sheets.
          | 118/120 [4:08:17<04:09, 124.63s/it]
98%|
```

```
House 120 has 22 sheets.
House 070 has 22 sheets.
99%|
          | 119/120 [4:10:16<02:03, 123.06s/it]
House 070 has 22 sheets.
House 087 has 22 sheets.
```

[]: