totalstation-convert.py

```python
001 # Parsen und konvertieren von Tachymeter-Daten
002 # #######################################################################
003
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009
010 # #######################################################################
011
012 # Import of Libraries
013 # -----------------------------------------------------------------------
014
015 # import math as m
016 # import string as st
017 # import random as r
018 import numpy as np
019 import os
020
021
022 # -----------------------------------------------------------------------
023 # Debugging-Settings
024
025 verbose = True  # Shows more debugging information
026
027
028 # Functions
029 # -----------------------------------------------------------------------
030
031
032 # Classes
033 # -----------------------------------------------------------------------
034
035
036 # Beginning of the Programm
037 # -----------------------------------------------------------------------
038
039 if __name__ == '__main__':
040
041     # Import der Messwerte des Tachymeters
042     file = open(os.path.join("data","totalstation_data.txt"))
043     totalstation_data = file.readlines()
044     file.close()
045     totalstation_data.pop(0)
046     for i, e in enumerate(totalstation_data):
047         totalstation_data[i] = e.strip().split(";")
048         temp = []
049         for j, f in enumerate(totalstation_data[i]):
050             if(j == 0 or j == 2):
051                 temp.append(int(f))
052             elif(j != 1):
053                 temp.append(float(f))
054             else:
055                 temp.append(f)
056         totalstation_data[i] = temp
057
058     for i, e in enumerate(totalstation_data):
059         totalstation_data[i][3] = e[3] /200*np.pi
060         totalstation_data[i][4] = e[4] /200*np.pi
061
062     # Export
063     file = open(os.path.join("data","totalstation_data_converted.txt"),f"w")
064     for i in totalstation_data:
065         for j, e in enumerate(i):
066             if(j == 0):
067                 file.writelines(f"{e}")
068             else:
069                 file.writelines(f"; {e}")
070         file.writelines(f"\n")
071     file.close()
```