

## totalstation-convert.py

```
001 # Parsen und konvertieren von Tachymeter-Daten
002 # #####
003
004 # Authors:
005 # Joshua Wolf
006 # Silas Teske
007 # Lasse Zeh
008 # Christopher Mahn
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 = False # 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     print("Running totalstation-convert.py...")
041
042     # Import der Messwerte des Tachymeters
043     file = open(os.path.join("data", "totalstation_data.txt"))
044     totalstation_data = file.readlines()
045     file.close()
046     totalstation_data.pop(0)
047     for i, e in enumerate(totalstation_data):
048         totalstation_data[i] = e.strip().split(";")
049         temp = []
050         for j, f in enumerate(totalstation_data[i]):
051             if(j == 0 or j == 2):
052                 temp.append(int(f))
053             elif(j != 1):
054                 temp.append(float(f))
055             else:
056                 temp.append(f)
057         totalstation_data[i] = temp
058
059     for i, e in enumerate(totalstation_data):
060         totalstation_data[i][3] = e[3] / 200 * np.pi
061         totalstation_data[i][4] = e[4] / 200 * np.pi
062
063     # Export
064     file = open(os.path.join("data", "totalstation_data_converted.txt"), "w")
065     for i in totalstation_data:
066         for j, e in enumerate(i):
067             if(j == 0):
068                 file.writelines(f"{e}")
069             else:
070                 file.writelines(f"; {e}")
071         file.writelines(f"\n")
072     file.close()
```