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from mrjob.job import MRJob
import re
import sys

class MRMedianWindDirection(MRJob):

    def mapper(self, _, line):
        try:
            val = line.strip()
            obs_month = val[15:21]
            wind_dir = val[60:63].strip()
            quality = val[63:64].strip()

            if wind_dir != "999" and re.match("[01459]", quality):
                yield obs_month, int(wind_dir)
            else:
                sys.stderr.write("Filtered out: {}\n".format(line))
        except Exception as e:
            sys.stderr.write("Mapper error: {}\n".format(e))

    def reducer(self, obs_month, wind_dirs):
        wind_dirs_list = sorted(wind_dirs)
        if not wind_dirs_list:
            yield obs_month, None
            return
        n = len(wind_dirs_list)
        if n % 2 == 1:
            median_wind_dir = wind_dirs_list[n // 2]
        else:
            median_wind_dir = (wind_dirs_list[n // 2 - 1] + wind_dirs_list[n // 2])
        / 2
        yield obs_month, median_wind_dir

if __name__ == '__main__':
    MRMedianWindDirection.run()

```