1. About this file

This ReadMe.txt is attached to the German Traffic Sign Detection
Benchmark (GTSDB) dataset. It was presented
in a competition at the IEEE International Joint Conference for Neural
Networks (IJCNN) 2013. Please visit
 http://benchmark.ini.rub.de
for further details. You are free to use this data package for any
purpose you like.
If you use it in a scientific publication, we want to ask you to cite
the following paper:

Sebastian Houben, Johannes Stallkamp, Jan Salmen, Marc Schlipsing and
Christian Igel,
"Detection of Traffic Signs in Real-World Images: The German Traffic
Sign Detection Benchmark",
IEEE International Joint Conference on Neural Networks (submitted),
2013

BibTeX:

@inproceedings{Houben-IJCNN-2013,
author = {Sebastian Houben and Johannes Stallkamp and Jan Salmen and
Marc Schlipsing and Christian Igel},
booktitle = {International Joint Conference on Neural Networks
(submitted)},
title = {Detection of Traffic Signs in Real-World Images: The {G}erman
{T}raffic {S}ign {D}etection {B}enchmark},
year = {2013},
}

2. Content of the download package

Along with this file you should have received a zip-file
containing ...

a) 900 image files with natural traffic scenes 00000.ppm - 00899.ppm
b) a text file gt.txt containing the ground truth for all traffic
signs in the images
c) image sections with single traffic signs in the respective
subdirectories named after the IDs (see below)

3. Explanation of ground truth text file

The text file contains lines of the form
#ImgNo#.ppm;#leftCol#;##topRow#;#rightCol#;#bottomRow#;#ClassID#
for each traffic sign in the dataset. The first field refers to the
image file the traffic sign is located in. Field 2 to 5 describe

the region of interest (ROI) in that image. Finally, the ClassID is an integer number representing the kind of traffic sign.
The mapping is as follows:

0 = speed limit 20 (prohibitory)
1 = speed limit 30 (prohibitory)
2 = speed limit 50 (prohibitory)
3 = speed limit 60 (prohibitory)
4 = speed limit 70 (prohibitory)
5 = speed limit 80 (prohibitory)
6 = restriction ends 80 (other)
7 = speed limit 100 (prohibitory)
8 = speed limit 120 (prohibitory)
9 = no overtaking (prohibitory)
10 = no overtaking (trucks) (prohibitory)
11 = priority at next intersection (danger)
12 = priority road (other)
13 = give way (other)
14 = stop (other)
15 = no traffic both ways (prohibitory)
16 = no trucks (prohibitory)
17 = no entry (other)
18 = danger (danger)
19 = bend left (danger)
20 = bend right (danger)
21 = bend (danger)
22 = uneven road (danger)
23 = slippery road (danger)
24 = road narrows (danger)
25 = construction (danger)
26 = traffic signal (danger)
27 = pedestrian crossing (danger)
28 = school crossing (danger)
29 = cycles crossing (danger)
30 = snow (danger)
31 = animals (danger)
32 = restriction ends (other)
33 = go right (mandatory)
34 = go left (mandatory)
35 = go straight (mandatory)
36 = go right or straight (mandatory)
37 = go left or straight (mandatory)
38 = keep right (mandatory)
39 = keep left (mandatory)
40 = roundabout (mandatory)
41 = restriction ends (overtaking) (other)
42 = restriction ends (overtaking (trucks)) (other)