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**Procedures of large scale Noise Mapping - examples based on**  
**German projects**

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Noise mapping projects for the German Federal States Baden-Wuerttemberg, Hesse and Schleswig-Holstein and for the cities Munich, Frankfurt and Wiesbaden are presented. These large projects have been performed using newest software technology like fully automated parallel computing applying the PCSP technique (Program Controlled Segmented Processing) and by using all CPU cores of the noise mapping computer cluster (multithreading). With the noise mapping for all main roads and railways in Austria the 64 Bit technology has been applied - this allows to handle even files of more than 10 GB without the need of manual intervention. The influence of these techniques on uncertainties is discussed using the strategy of DIN 45687 and it is shown that such complete 3D models are the optimal basis to develop noise reduction measures in the frame of Action Planning.