

## Terrestrial Laser Scanning – Slag Dump

### Client

Government of Upper Palatinate (Oberpfalz), Construction Department "Schlackenberg"

### Location / Date

Sulzbach-Rosenberg, Upper Palatinate (Oberpfalz), Bavaria, Germany / 2006

### Background

Sulzbach Rosenberg, a city in the district of Upper Palatinate (Oberpfalz) was the location of the Maxhütte, an old iron smelter. A few years ago the smelter was shut down. One of the residues of this smelter is a slag dump (21ha @ 4.5 Mio m<sup>3</sup>, height 55m). To minimise the environmental impact the Bavarian administration has decided to remove the dump partially and to cover the remains with plastic film. For planning and permitting purposes an exact surface model of the dump was required.

### Scope of Work

- Scanning of the total dump area
- Creation of a 3 D wire frame model of the surface with a 2m x 2m point spacing
- Detection of toe and crest lines and updating of the existing maps

### Result

- dwg file of surface model for import into Auto-Cad
- dwg file of the toe and crest lines for import into Auto-Cad
- Hard copies and dwg-files of the updated maps

### Time Required

Laser scanning of the total dump required 37 scanning positions and took app. 20 working hours, inclusive surveying of registration points with a total station. Data processing required another 16 hours incl. scan orientation and data filtering. Scanning was performed by 2 persons.

### Scanning Equipment

I-SiTE 4400 scanner + I-SITE Studio processing software

