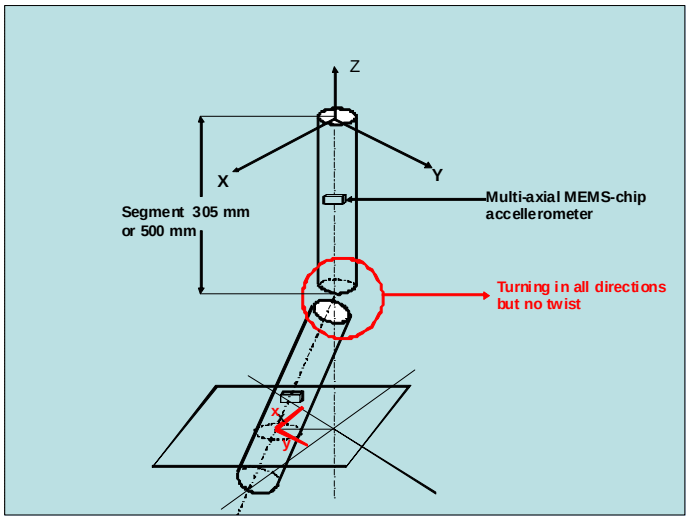
ANCHORVIEW

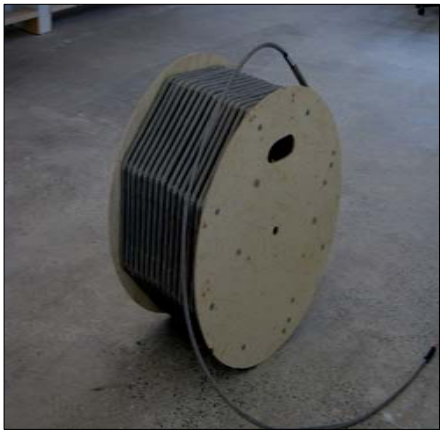
ACCURATE 3D DETERMINATION OF THE SHAPE OF:

- **GROUT ANCHORS**
- **DRILL CASINGS**
- **INJECTION PIPES**
- **SOIL FREEZE SYSTEMS**

THE SHAPE OF GROUT ANCHORS

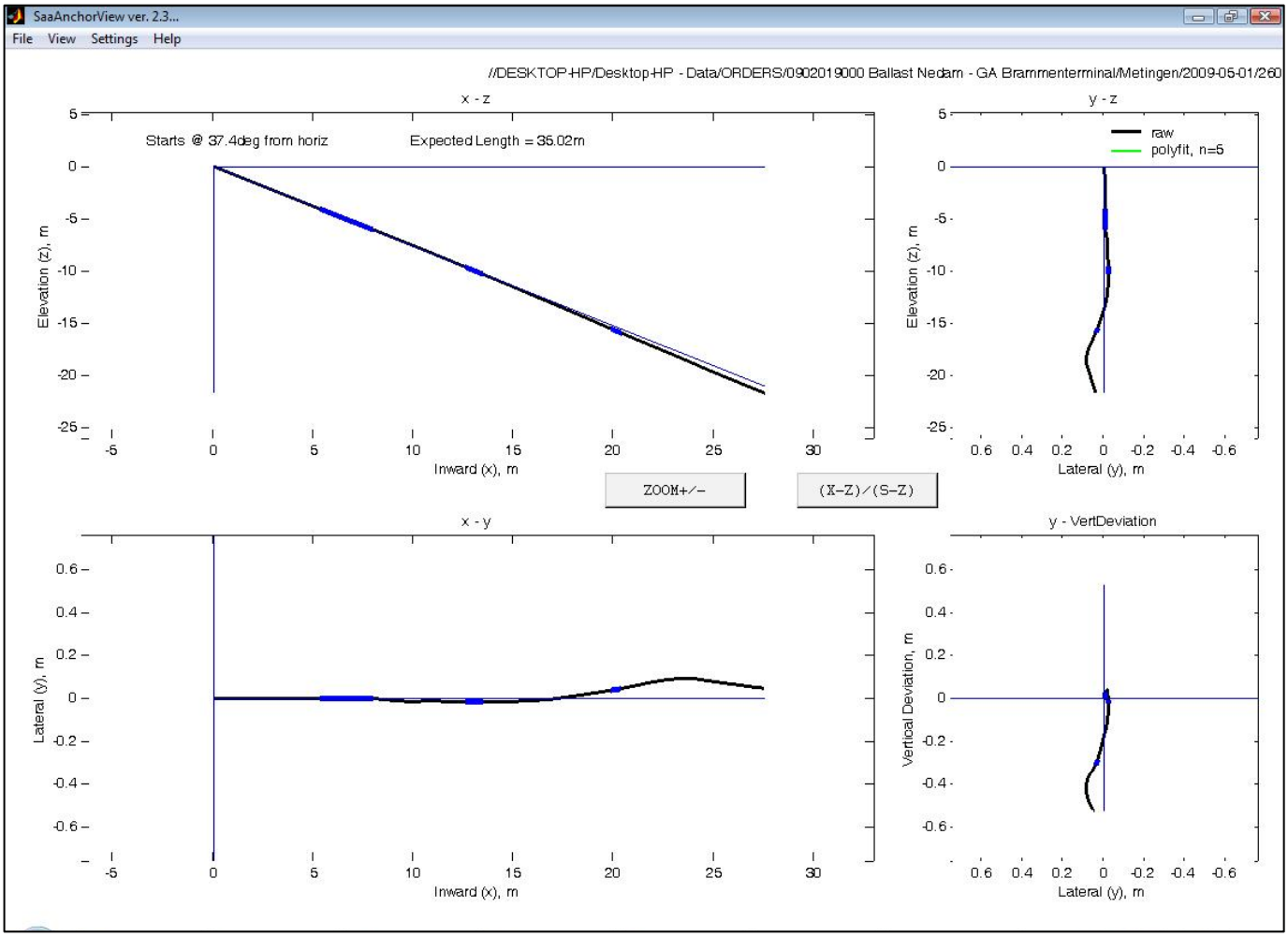
On construction drawings grout injection anchors are drawn as straight lines. Practice can be quite different: during the drilling process anchors can easily deviate from the intended path, both in horizontal and vertical direction, due to a number of causes. Having a shape that differs from the design can seriously affect the retaining strength of a grout anchor. And there can be additional reasons why one would want to know the real three-dimensional shape of the anchor after it has been put into place. This is now possible with **ANCHORVIEW** using the **SAAF**.





SAAF

The **ShapeAccelArray/Field** (**SAAF**) consists of an articulated chain of sensor elements (segments). The segments are joined together in such a manner that they can move in relation to each other in all directions but do not twist.
Each segment contains a multi-axial MEMS-chip accelerometer. This makes the segment act as an extremely accurate inclinometer that determines the angle of inclination in both X- and Y-direction. The length of a segment is 0,305m or 0,500m, the diameter is only 25mm. By lowering the SAAF into the hollow core of a grout anchor and reading all the segments in the chain, the shape of the anchor is determined very accurately. For this purpose usually a SAAF with a manageable length of around 10m is utilised. The shape of longer anchors is then obtained by making successive readings with short overlaps. Due to its articulated construction the SAAF is easy to transport on a reel. Its weight is only 0,5kg/m. The SAAF is fully watertight up to 100mwc and measures with an accuracy of 1,5mm over a length of 30m.



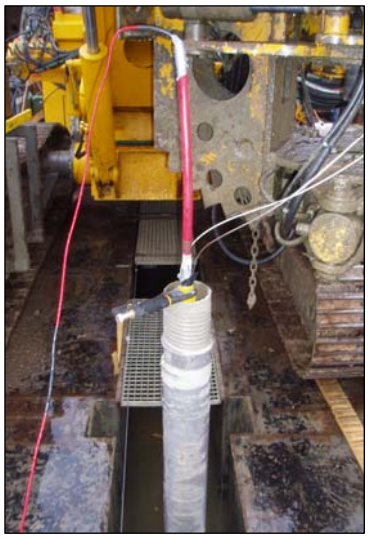
Example of the graphical presentation of the shape of an anchor (distorted scale)

NOT ONLY FOR GROUT ANCHORS

Also in a number of other cases ANCHORVIEW can be the solution.
Examples are the inspection of the sufficiently correct position of soil freezing pipes, the shape of injection pipes for soil stabilisation and the inclination of drilling casings.

SERVICE

Inventec carries-out ANCHORVIEW measurements as an independent party on the basis of a day rate. The measurement report is submitted in both alphanumerical and graphical presentation.
If crucial for the progress of the construction activities, the data can be made available already on the spot, straight after the measurement.



Measuring the inclination of GEWI piles

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