MONITOR Process

VMT GmbH provides customized monitoring systems for monitoring facilities and buildings. This includes, depending on customer requirements, hardware and software components for the recording and transmission of measured values to a central database, software for data analysis and comprehensive reporting and alarm management.

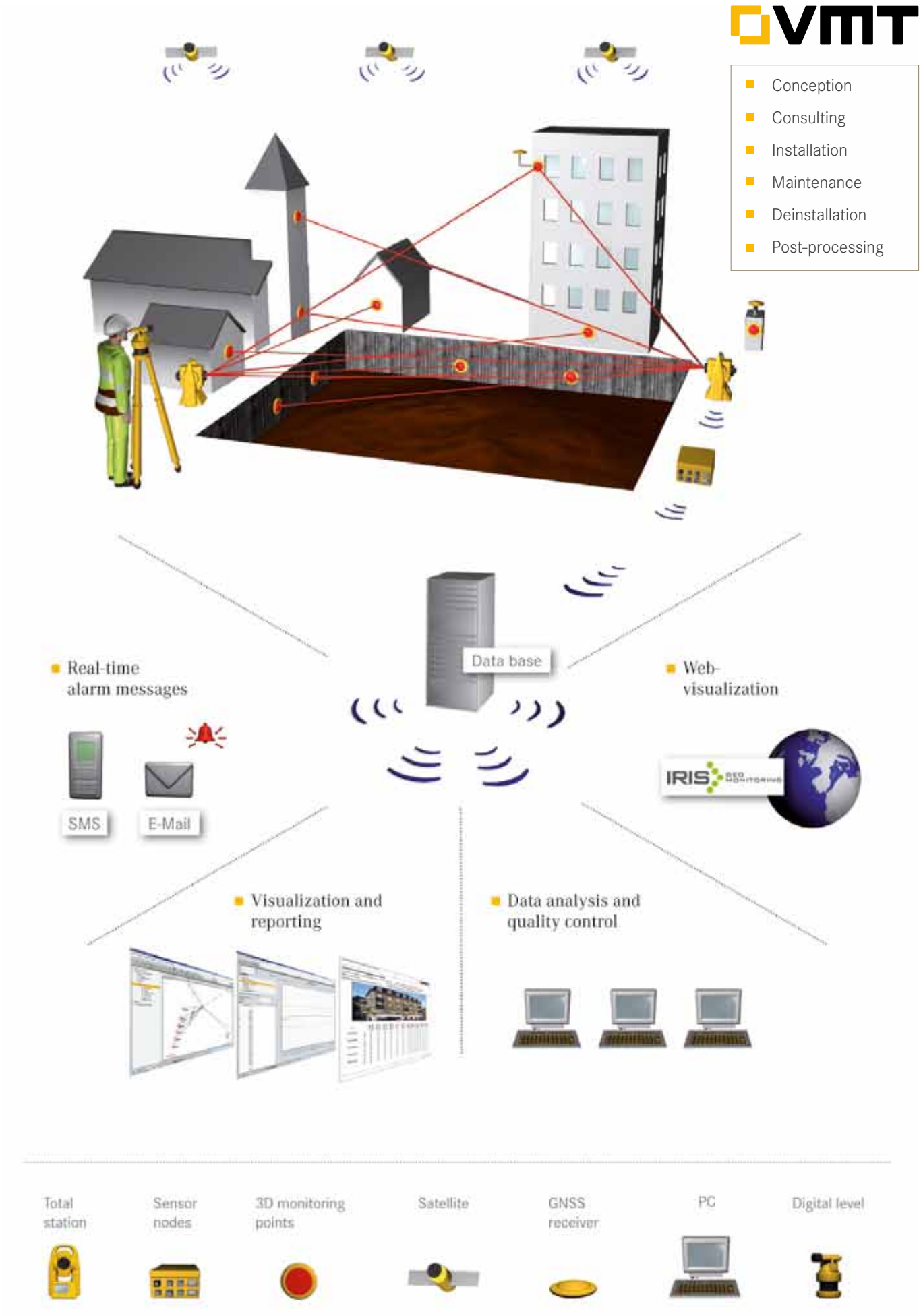
Deformation Monitoring

From the conceptual design of the project and selecting appropriate sensors, through installation, initial measurement and maintenance, up to removal of our systems, the engineers from VMT GmbH provide any services related to deformation monitoring.

The monitoring systems from VMT GmbH can basically record all geodetic and geotechnical sensors and process them, for example motorized total stations, levelling devices and GNSS receivers.

In modern geosensor networks, sensor nodes gather and transmit the measured values of the sensors fully automatically to a central database.

Fully automated monitoring at a high measurement frequency implements a detailed and consistent documentation of the building progress, and thus minimizes staff costs and disruption to the building work.



Deformation monitoring package from VMT

Deformation Monitoring

The deformation monitoring systems from VMT GmbH are modularly designed, can be used flexibly for any monitoring job and incorporated into any existing system.

The data analysis and quality control of the measured values is carried out completely automatically in the TUnIS Deformation Monitoring software in accordance with recognized scientific methods for network adjustment and following DIN 18710. The automatic reporting includes tabular and graphical reports as well as project graphics and survey diagrams.

Alarm messages are generated and sent to responsible persons by e-mail or SMS when predefined threshold values are exceeded or a system failure occurs.

The web-based, Integrated Risk and Information System IRIS provides worldwide password-protected access to all process and monitoring data arising.

For the operation of monitoring systems in isolated areas, VMT GmbH provides solutions for mobile electricity generation, such as solar power generation or fuel cells.

Overview map for displaying monitored points

Nordhavnsvej Monitoring

pihl VMT

Monitoring report

From 02.01.2012, 00:00:00 to 08.01.2012, 23:59:59 The time data correspond to: (UTC + 1)

Network: Net_1 Initial epoch: 2011-12-03 00:00:00Z (03.12.2011, 02:00:00)

Coordinates [m]; Deformations [mm] Transformation of coordinates: Identity Transformation

No.		Monday 02.01.2012	Tuesday 03.01.2012	Wednesday 04.01.2012	Thursday 05.01.2012	Friday 06.01.2012	Saturday 07.01.2012	Sunday 08.01.2012	Average CW 1	Average CW 52	Maximum value	Minimum value
4032202	Y	3	6	1	2	0	1	0	2	3	6	0
	X	-1	-5	-1	-1	0	0	0	-1	-1	0	-5
	Z	-1	1	1	1	0	0	0	0	-1	1	-1
4032203	Y	3	5	1	2	0	1	0	2	3	5	0
	X	-1	0	0	0	2	2	2	1	0	2	-1
	Z	-1	0	0	0	0	0	0	0	-1	0	-1
4032204	Y	1	1	1	1	1	---	---	1	1	1	1
	X	0	0	0	0	0	---	---	0	0	0	0
	Z	-2	-2	-1	-2	-1	---	---	-1	0	-1	-2
4032205	Y	1	1	1	1	1	---	---	1	0	1	1
	X	0	0	0	0	0	---	---	0	0	0	0
	Z	-2	-1	-1	-2	-1	---	---	-1	-1	-1	-2
4032206	Y	0	1	1	1	0	---	---	1	0	1	0
	X	0	0	0	0	0	---	---	0	0	0	0
	Z	-2	-1	-1	-2	-1	---	---	-1	-1	-1	-2
4032207	Y	1	1	1	1	1	---	---	1	1	1	1
	X	0	0	0	0	0	---	---	0	0	0	0

09.01.2012, 14:43:37
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Tabular report

VMT

Deformation Monitoring

From the conceptual design of the project up to removal of our systems you receive all services from one secure. Our customers benefit from short reaction time and service lead time thanks to a worldwide company presence.

Features

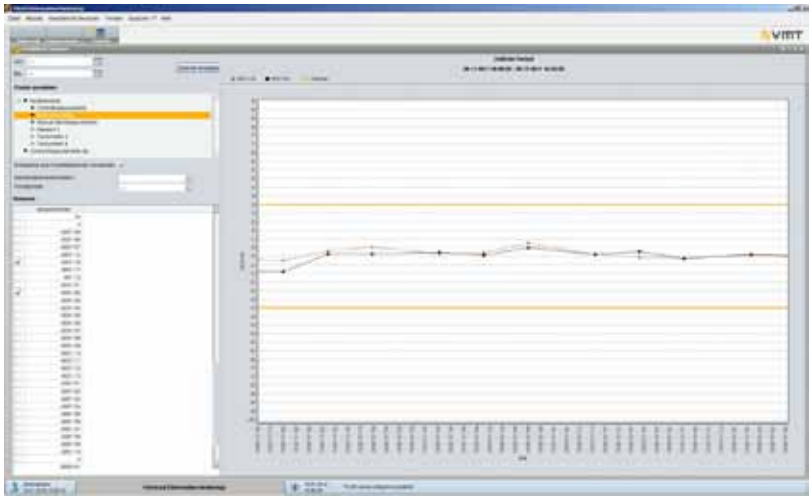
- High flexibility through the recording and processing of geodetic and geotechnical sensors
- Freely scaleable and robust hardware
- Combined evaluation of manual and automatic measurements
- Automated warning and alarm messages by e-mail or text message
- Mobile electrical supply for use in isolated areas
- Automated quality control including elimination of outliers

Benefits

- All services from one source
- Short reaction time and service lead time thanks to a worldwide company presence
- Fully automated monitoring without influencing the building operation
- Minimization of risk due to detailed and consistent documentation
- Reduction of costs and staff effort with automated, continuous data recording
- Links with process and monitoring data (virtual sensors)

Applications

- Above-ground and below-ground buildings, infrastructure facilities
- Civil engineering structures such as bridges, towers, or tunnels
- Structures like river dams or barrages
- Unstable slopes and volcanos
- Excavation shafts and safety barriers



Representation of point settlements

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