How we build reality

Newsletter June 2013

Last-minute initiative
Zoller + Fröhlich digitally preserves the „Beautiful Mill“

Old mills are often „contemporary witnesses“ of several centuries for the history of development of technical progress in the countryside. Unfortunately, these buildings are exposed to the threat of collapse and despite the efforts for preservation and awareness raising – for example by the *German Mill-Day* – the number of such structures is constantly declining. The “Beautiful Mill” in the idyllic Deggenhauser-Valley, which is located near the Lake Constance, is a very good example for such tendency.

The mill experienced its prime in the 19th century and had been operating until the 1960s. The flour was distributed intraregionally, even to nearby Switzerland. In addition, a generator produced electricity for the surrounding farms. The three-story-building was progressively endowed for those days, also with a common elevator for mills. The elevator as well as the entire machinery was driven by water power via transmission shafts and leather straps.

Although recent profound changes were made, the building‘s substance still contained original parts from the first half of the 18th century.

Pictures
Top: Panorama view of the gable wall and mill stream
Middle: The „Beautiful Mill“ in a textured 3D view
Bottom: The water wheel‘s gear unit in a HDR textured 3D view

These were mainly visible in the gable‘s front and in parts of the milling machinery. It had been dilapidated for quite some time. Even a structural change in the building‘s statics of the meanwhile overhanging gable wall would have been necessary. The partial demolition of the original structure was imminent.

The activities of removing the millwheel and machinery from several centuries - without any consistent documentation - had already started in 2012. The permanent loss of the mill seemed to be inevitable, when Zoller + Fröhlich spontaneously took the initiative in spring 2013, to preserve this building digitally one day before the demolition works started. About 40 shots from the inside and outside were taken with the most advanced 3D laser scanning technology, the Z+F IMAGER® 5010C, to document the building as well as the transmission shafts.

The integrated colour camera of the scanner performed excellently and significantly enriched the pointcloud, as it can be displayed in full colour without any special devices, know-how or manual post-processing. The unique HDR function made it possible to document the mill thoroughly in its darkest corners in colour, since it delivers brilliant results even in difficult lighting conditions with very large contrast range. It delivered detailed results especially in the transition between inside and outside as well as in the dark corners of the transmission shafts and the gear unit of the water wheel.

We sincerely thank the owner of the mill for the spontaneous cooperation. In case you would like to receive more information about the project, please send us an e-mail to marketing@zf-laser.com.

How we build reality

Visit us at booth A3/098
INTERGEO 2013
Essen
Convention Center
October 8 - 10

Newsletter June 2013

Impressions
Scan results of the Z+F IMAGER® 5010C

360° views, from top: The German Reichstag in Berlin, a part of the Berlin Wall and the inside of the St. Martin's church in Wangen/ Allgäu. Settings: high (resolution) / normal (quality). Total duration for scan and HDR-shot, approx. 7 minutes each.

Send us your best scans done with your Z+F Laserscanner

Send us your most beautiful scans and shots done with a Z+F laserscanner or with Z+F equipment in the field to marketing@zf-laser.com. The best pictures will be published in the upcoming newsletter (September 2013) and the Z+F booth at the INTERGEO.

Our product portfolio in laser scanning technology currently includes the following products:

IMAGER® 5006h	IMAGER® 5010C
IMAGER® 5006EX	Profiler 9012
IMAGER® 5010	Software LaserControl

Contact
Zoller + Fröhlich GmbH
Simoniusstraße 22
88239 Wangen im Allgäu
Germany

Tel.: +49 (0) 7522 9308-0
Fax: +49 (0) 7522 9308-252
info@zf-laser.com
www.zf-laser.com