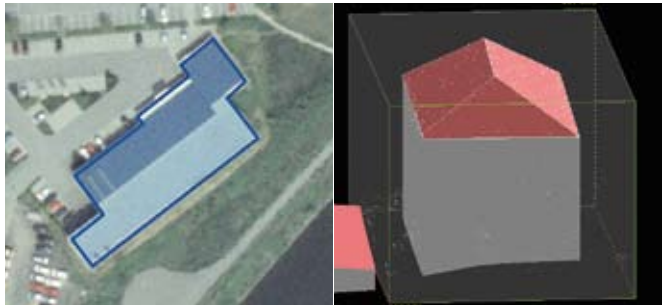# novaFACTORY 3D Pro Module
For the automated generation of 3D buildings

The novaFACTORY 3D Pro Module is designed for automated broad scale generation of 3D buildings with roof structures (Level of Detail 2) from building footprints, LIDAR point clouds and digital terrain models. novaFACTORY radically simplifies the process of accurate generation of complex Digital Building Models (DBM) on large areas. It offers the entire workflow from data import through 3D building generation and finally, data viewing and dissemination.

As with all novaFACTORY modules the process is controlled via an intuitive web interface, giving the user full control of the progress and data quality at any time of the process.

novaFACTORY 3D Pro offers a set of advanced scheduling tools that enables user to configure and schedule all tasks necessary to generate 3D building models from a predefined set of input data, e.g. during the night or other periods of low load on your servers. Background processing ensures that your system is not tied up or blocked when running the computation. After successful generation of the building model data are stored in a relational database.
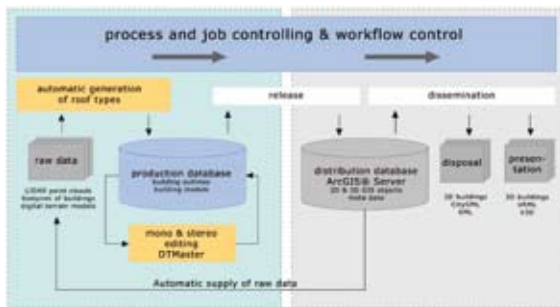
Interactive control and visualisation is possible through the integration of novaFACTORY 3D Pro with ArcScene® and INPHO's DTMaster, a powerful editing

tool for efficient quality control of 3D geo data in stereo and mono. With DTMaster users can visualise data, check for plausibility, interactively edit and measure 3D buildings, or add additional details to roofs manually.

Supplementing the geometry novaFACTORY 3D Pro Module creates and manages attributes and meta data like information about the source and qualitiy of the input data. It is so far the only product to comply with the meta data standard published by the Working Committee of the Surveying Authorities of the States of the Federal Republic of Germany (AdV, Arbeitsgemeinschaft der deutschen Vermessungsverwaltungen). Tagging interactively edited buildings ensures their integrity even in an automated update cycle.

Upon completion of data processing, 3D building generation and – if necessary – interactive editing data can be saved to CityGML format. In combination with the novaFACTORY 3D GDI Module users get access to an advanced solution for efficient 3D Digital Building Model management, from model generation to data publishing in CityGML format.

The novaFACTORY 3D Pro Module is a joint development with INPHO, a leading end-to-end photogrammetric systems supplier.