



## Optaglio prepares technology for machine reading of holograms

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Optaglio announced the final phase of development of technology for automated decision making about the genuineness of documents. Machine reading of holograms is critical for increasing of an effectiveness of border checks, security inspections, checking tax stamps, highway stickers, etc.

A document examined will be put into a movable machine and shined on with the proper color light from the proper direction. Sensors will check a presence of an expected visual effect.

Machine reading of holograms thus connects two areas of benefits that have been disparated – automation (especially speed, effectiveness and error-free operation) and offline operation (no access to a database is required).

It is expected that machine reading of holograms will be very helpful especially in situation where the documents are checked by uninformed, careless or tired person.

"Machine reading of holograms can look simple at a first glance but it needs a lot of research," said Dr. Tomáš Karenský, senior research manager in Optaglio. "There are a lot seemingly minor issues that can prevent you from successful automation. Thanks to the long and rich history of our laboratories, we entered this program equipped with a fundamental understanding of all of these issues and way of their solution."

Even the development of holograms for trouble-free reading is challenging. The technology must ensure reliability close to 100 per cent even if the document is polluted or damaged. 100 per cent reliability means that no genuine document is refused and no document with imitated hologram is accepted. Optaglio can benefit from its unrivaled mastering of e-beam lithography, unique visual effects and extensive consulting practice focused on identity document processes.

All research and development activities are realised in Optaglio research center in Lochovice, Czech Republic. This centre has got sufficient in-house capacities to cover several research programmes at the same time. It also works together with universities and theoretical science institutes.

In 1994, Optaglio originated from Czech Academy of Science. Research has always been a strategic priority for the company, in terms of both financial investment and employee composition. This effort has resulted in a range of patents, and several breakthrough innovations, including microholograms, OVImage (holographic technology for identification of individual documents) and OVMesh (seamless integration of holograms into polycarbonate cards) and e-beam lithography with resolution up to 2.5 million DPI.

### About Optaglio

Optaglio is a leading global provider of advanced optical security devices and the market leader in e-beam lithography. During almost 25 years of our history, we have delivered hundreds of millions of holograms to governments, financial institutions and other organizations in more than 50 countries around the world. Our unique technology has been broadly recognized as the industry standard for optical security.

Optaglio, certified to relevant international standards, operates under strict 24/7 security supervision. Our comprehensive security system covers people, processes, data and facilities. The company is a member of International Hologram Association (IHMA) through which it registers all its security devices and hologram in the central security register, in London.

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