Datasheet of the IKTA4/030 project

I. *3D display platform for professional IT applications*

Project start: November 5, 2001, duration: 23 months.

Amount of support: KHUF 68 550, total project cost: KHUF 136 900.

Project leader: ***Balogh Tibor***
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<***http://holografika@axelero.hu***>, phone: +36 (1) 281-9114

Project URL: <>

II. Consortium members (number of members = **3**, the first member is the project co-ordinator)

no	*name*	*support*	*total cost*
1.	Holografika individual company	KHUF 58 950	KHUF 119 500
2.	Budapest University of Technology and Economics, Dept. of Atomic Physics	KHUF 8 100	KHUF 14 400
3.	Heim Pal Child Hospital	KHUF 1 500	KHUF 3 000

III. Public presentations

No presentation is available.

IV. Goals of the project

The aim of the project is to develop a totally unique 3D imaging and displaying platform, which is able to spatially display the currently used 3D data generated by professional IT systems in a real 3D manner.

3D data is present in CAD applications, simulators, virtual reality systems, 3D games, scientific imaging, radar systems, CT, MR, PET systems and ultra-sound devices, though displaying of this information has not been solved yet up till now. Current displays can only provide just a fraction of the whole information in a way of 2D view or cuts. A 3D image contains significantly more information than a 2D, enabling a more effective human-machine communication: e.g. reduce designing process, decrease the number of errors, by revealing spatial structures and corellactions provides more precise diagnosis.

Todays technology level enables the realisation of real 3D displays, which was proved by the first generation patended prototype system, developed by the candidates. A hardware device can not live solely on its own, only if a proper software application environment running in the background. In the frame of the current project a medical application environment, based on "real" 3D image processing, and "real" 3D CAD applications will be developed to provoke further interest. Furthermore development and recommendations for 3D data formats, transmision protocols, software algorithm with large compression rate, which enable the transmission of 3D image data over the Internet.

In the hardware development the goal is to realise a platform, which can be a base for a later small-scale production, based on existing 3D display. While this platform would exploite all the technical advantage of the real 3D display (motion parallax, visible to naked eye, wide field of view, hologram like caracteristics, etc.), according to users requirements will be optimased to medical and CAD demands.

V. Project results (in case of finished projects)

The project is not finished.

VI. Data on consortium members (number of members = **3**)

1. ***Holografika individual company*** (co-ordinator)

   URL: <>

   Support for the co-ordinator: KHUF 58 950, and its total cost: KHUF 119 500.
   Contract number: .

   Team leader: ***Balogh Tibor***
   Holografika e.c.
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2. ***Budapest University of Technology and Economics, Dept. of Atomic Physics***

   URL: <***http://qchem52.fat.bme.hu***>

   Support for the consortium member: KHUF 8 100, and its total cost: KHUF 14 400.
   Contract number: .

   Team leader: ***Richter Péter Dr.***
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3. ***Heim Pal Child Hospital***

   URL: <>

   Support for the consortium member: KHUF 1 500, and its total cost: KHUF 3 000.
   Contract number: .

   Team leader: ***Harkányi Zoltán Dr.***
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