

# iPONT and 3D

- iPONT's software solution converts 3D for use with auto-stereoscopic monitors
- 3D enjoyment without annoying glasses
- Potential for receiver manufacturers to expand their STB's to include 3D
- Compatible with the variety of manufacturer auto-stereoscopic monitor solutions

■ To the left is the "Allee" shopping mall in Budapest, Hungary in which iPONT has already installed their 3D system. To the right is the "Allee Corner Office" building in which the startup company iPONT can be found.



# 3D Without Glasses Digital TV in Three Dimensions Using an Auto-Stereoscopic Flat Screen

Alexander Wiese



If you wear glasses like I do, the idea of carrying a second pair of special glasses just so that I can watch 3D TV is not really attractive. Wearing one pair of glasses on top of another pair just doesn't work for an eyeglass wearer like me. This method would still be acceptable if I were going to a movie theater but it would feel uncomfortable to have to do this at home on my own couch.

The situation would look different if 3D could be displayed without the need for any special glasses. But how would

that be possible? One company that has come up with a solution to this dilemma is the startup firm iPONT in Hungary. Instead of 3D glasses, you would need an auto-stereoscopic monitor.

To find out more about all of this we decided to pay a visit to iPONT in downtown Budapest. They are located in a brand new office building directly adjacent to the equally brand new "Allee" shopping mall. And just like many shopping malls today, the "Allee" mall has a number of monitors scattered about displaying advertisements and trailers

from all the different shops in the mall. But, wait a minute, this one monitor is showing these advertisements in "3D without glasses". iPONT has already secured the mall next door as a customer. It's a perfect form of advertising for this young company!

iPONT is run by two entrepreneurs: Zoltan Korcsok is the CEO and Andor Pasztor is the CTO (responsible for technical development). CEO Zoltan Korcsok explains to us how it all began: "iPONT was founded in 2003. Back then we developed software for the Internet." In 2007 it became interesting: Andor Pasztor discovered the first stereoscopic monitors at an electronic trade show. The two long-time friends knew instantly that there was something new on the rise, but they still had to figure out exactly what.

Technical Manager Andor Pasztor explains to us the basics of an auto-stereoscopic view: "To perceive three dimensions you need two images; one for the left eye and the other for the right eye." A 3D movie is captured using two cameras, that is, stereoscopically. For playback, the question becomes how to get these two images to the eyes of the viewer. One way would be to deliver the two images individually left and right to each eye of the viewer or you simply bypass this method and generate a three-dimensional picture right on the monitor.

■ iPONT's secret is hidden inside this server box: the software that converts the 3D signals so that they can be viewed on an auto-stereoscopic monitor without any special glasses.



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1. The two friends and business partners: CTO Andor Pasztor and CEO Zoltan Korcsok in their headquarters in Budapest in front of one of iPONT's "3D without glasses" auto-stereoscopic monitors. The company that currently has 40 employees operates two other offices in Hungary: the software engineers are in Szeged while the creative team can be found in Bekescsaba.

2. Ervin Farkas takes care of customer service for iPONT's professional customers.

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Andor Pasztor explains how it works: "Depending on the system technology, auto-stereoscopic monitors require between five and ten images." The two original images from a 3D film are multiplied to 5 to 10 images using special software. And what is this special software? This is exactly what was developed by the software specialists at iPONT: software that can take two images from a 3D source and generate between five and ten images (de-

pending on the capabilities of the auto-stereoscopic monitor that is used). This allows an auto-stereoscopic monitor to present a 3D image that will appear three-dimensional to a viewer as long as he's sitting within a certain angle and distance from the monitor.

At this point the technology is still so expensive that it really can only be put into service by professional users. Zoltan Korcsok explains, "In 2009 we

got our first professional customer – a media partner in The Middle East – who is using 3D monitors in shopping malls and airports." By 2010 they added an additional five professional customers and for 2011 the two partners are expecting another five professional customers to come on board. By then iPONT will be overseeing several thousand 3D monitors; they not only provide the technology but the entire handling of the system and technology. "We can



■ "Out of Home Media" is one of iPONT's professional customers. This company operates 3D monitors in shopping malls like the "Allee" mall here in Budapest, Hungary. This mall is located conveniently right next door to iPONT's offices. The customers in the mall can view ads and trailers on these monitors in 3D without the need to put on special glasses ("3D without glasses").



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1. Glen Harper, who previously worked at a software company, is President of iPONT USA.  
2. iPONT at CES 2011 in Las Vegas introducing their new home-grown 3D system.

control each and every monitor via the Internet”, explains CTO Andor Pasztor.

So much for the professional side of iPONT’s business. This technology will also become interesting for the end-user before too long. “The prices for auto-stereoscopic monitors are coming down and will eventually become affordable for private TV viewers”, says Andor Pasztor. But what will end-users be able to see with an auto-stereoscopic monitor? “Some monitor manufacturers will have their own solution”, Andor Pasztor is convinced, “but it’s receiver manufacturers that will have new doors opened for them.” They could upgrade their boxes with 3D auto-stereoscopic.

The two business partners Zoltan Korcsok and Andor Pasztor already have some concrete ideas on how this could all work: “Receiver manufacturers could obtain a license from us or we could deliver blueprints for a auto-stereoscopic converter box to them”, explains Zoltan Korcsok. Andor Pasztor expands on this: “Our software runs via Linux.” The commercial possibilities for this new “3D without glasses” technology is so enormous that the two part-

ners are open to the idea of additional capital investment. “This would allow us to expand on an even faster scale and improve our software even further.” If interested, the two partners can be reached by Email: [investors@ipont.com](mailto:investors@ipont.com)

iPONT is already on an expansion course: The company has recently opened a sales office in Toronto, Canada and is in the process of opening two more sales offices in the USA; one in Dallas, Texas and the other in San Francisco, California. iPONT has discovered a very interesting market niche that for the time being only has meaning for professional users but could also become relevant for private end-users in a very short time if receiver manufacturers start incorporating this new technology in their receivers. Actually, it’s not a matter of “if” but “when”.

We can’t wait to see the first receivers with “3D without glasses” technology!

*Note: See also our report in this issue of TELE-satellite about a 3D converter for “3D with glasses”*

