



## The Wainhouse Research Bulletin

*Online News and Views on Visual Collaboration  
and Rich Media Communications*

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# ***SPECIAL EDITION***

## **PICTURETEL 900 SERIES UNLEASHED**

This is a special edition of the Wainhouse Research Bulletin, devoted to the latest breaking product and financial news from PictureTel. Read all about it below, and, if you're web-connected, share your views on our newly instituted discussion boards by clicking on the web links below, or by visiting <http://www.wainhouse.com>. We think the PictureTel 900 Series announcement is particularly significant – hence this newsletter. But let's hear your feedback and your opinions.

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### **A Star is Born**

Well, it's been over a year and a half in gestation, and the subject of numerous rumors, espionage campaigns, and not-so-secret non-disclosure presentations, but after long last, the PictureTel 900 Series, code named Stinger, is public. Not since the F-117 flew in the Gulf War have so many friends and enemies longed to get their eyes on a secret weapon.

So, what's our quick take at Wainhouse Research? We've seen the press releases, we've seen the data sheet, but more importantly, we've seen the product in operation during one short and one long demonstration session. (We haven't had a chance to play with it ourselves, only to see others play with it for us!) Our conclusions are:

1. This product is very significant. It establishes a new playing field for the videoconferencing industry. It will intensify the war between appliances and PC-centric systems
2. While the list of PictureTel 900 Series innovations is long, long, long, (details below)

we believe there are three up-front attributes that lead the pack.

- a. The video quality at 384 kbps is better than anything we have seen. At 128 kbps the video quality is as good as any other system on the market and superior to most.
- b. The audio quality is better than anything else we have heard. The delay is shorter than we've ever experienced, though we have no quantitative data, just empirical experience. The combination of the Bose speakers with PictureTel's new 14khz wide-band audio simply has to be heard to be appreciated. The overall result (audio, video, delay) for the user is a more natural meeting experience than any videoconference we've held before.
- c. The user interface, information sharing approach (dubbed People+Content), and hardware/software architecture dubbed iPower (the result of the Intel joint development), is very powerful, intuitive, and slick at the same time. Like the audio, you have to see it to understand it; and though we'll try our best, you can't just read about it in a newsletter or magazine article. We think the user interface is a breakthrough for

the industry. The user interface also incorporates numerous innovations in the data collaboration area which we feel are significant advances in ease-of-use (more below).

So, while the PictureTel 900 Series may not be perfect, it IS pretty amazing and it IS a product line that appears worthy of the daunting task of turning around PictureTel's fortunes.

If you think we've gone off the deep end on this one, [click here to share your views on the significance of this announcement](#).

### **Just the Facts, Ma'am**

The PictureTel 900 Series consists of two models, the 960 and 970 that share much in common. To the 960 the 970 adds LimeLight voice tracking technology and PictureTel's ImageShare device.

- Based on an open PC architecture, built on a combination of Pentium III host processing and 4 dedicated TriMedia-1300 processors (Philips) for the audio/video heavy lifting, and Windows NT 4.0. (Windows 2000 support is planned.)
- Support for both H.320 and H.323. The H.323 capabilities include a proprietary routine to overcome packet loss. This works only in the receiving station, leaving the system totally compatible with non-PictureTel systems
- 14 kHz audio with proprietary Siren 14
- 7 kHz audio, including G.722 and G.722.1
- H.261, H.263, H.263+ video
- T.120, NetMeeting support
- XGA, SVGA, and VGA support via ImageShare, screen capture, or T.120
- The PT 900 series adds a reliability feature that heretofore has been the exclusive domain of Tandberg – the ability to survive a hit on a BRI line and keep the call going. The system downspeeds automatically as each BRI line is taken out (we physically unplugged them during the demo). There is a noticeable video hiccup – and a delay while the system resets, but the call is NOT dropped. Equally impressive, when problems do arise at any

time, the system provides error screens that are actually helpful. I only wish Microsoft were so kind.

- Remote management through a standard browser interface, including configuration, administration, and troubleshooting with a true SNMP agent embedded in every system. Plus support for HP OpenView.
- The PT960 lists at \$9,500 in an IP-only version and \$11,500 with support for 512 kbps ISDN, no display and no cart.
- The PT970 lists for \$14,500 in an IP only version and \$16,500 with 512 kbps ISDN, no display and no cart.

### **Displays Displays Displays**

This first release of the hardware/software introduces some new concepts in the area of display management. The user can view video on an NTSC screen or on a computer screen in a variety of resolutions natural to the PC world. Hence, during a video call you can transmit XGA graphics (1024 x 768) – the result is the ability to read very fine point Excel spreadsheets and detailed PowerPoint slides that is as good as any system we have witnessed. The initial software allows you to send people OR content, but the next release will enable both simultaneously. This is one of the magic points of data collaboration and remote presentations with a videoconferencing system – the remote side wants to see the speaker AND the slides, not one or the other. Most systems today (except for Tandberg's "Duo Video") cannot do this very well. The PT 900 sends data through an internal scan converter if the remote system cannot handle the high resolution data and is limited to NTSC displays.

### **Introducing A Better User Interface**

The People+Content concept is central to the new user interface. As alluded to above, you have to see it to "get" it. The menu is live and updated continuously to show you what peripherals are "turned on" at the present time and what the other side is viewing. Think of these as live video and data thumbnails that get updated every few seconds. The overall result however is to bring new meaning to the word "intuitive."

## Data Sharing to beat the band

The iShare architecture introduces a new level of collaboration to the conferencing world. From PictureTel's perspective, their People+Content data collaboration innovations are so different and compelling that this is their lead statement in many product presentations. Suffice to say that they have taken the open-PC concept to an extreme and that the result is not only worlds apart from the set-top appliance concept, it is also different from other PC-based systems. The details are sufficiently important and innovate to rate a separate sidebar below. The summary point, however, is that users need know only how to use a PC – there is no special application for data sharing. Any application on the machine comes up with a “share” button in the windows title bar next to the minimize button. If you are using a separate PC rather than the internal computer, the T.120 connection is automatic and runs at up to 115 kbps.

## Introducing ImageShare

ImageShare is PictureTel's name for a little device that sits in the middle of the conference room table and acts as an intelligent video input/output switcher (my word, not theirs) or intelligent XGA interface. With ImageShare you can plug in your laptop and/or projector and the conferencing system user interface will display all the attached peripheral devices on the menu bar so you can simply click away to share content at native resolution. The system will eventually automatically synchronize views from multiple sites to ensure that all participants are looking at the same content.

## Camera Model Number Non-Sense

The PictureTel 970 system comes with the PictureTel 80 camera (motorized PTZ with tracking)

The PictureTel 960 system comes with the PictureTel 70 camera (motorized PTZ)

## So, What's Missing?

- Well, the product has no embedded MCU.
- The unique features of the iPower architecture are not yet supported by any MCU.

- There is no 60 field per second video
- There is no dual-stream video.
- There is no announced gateway or gatekeeper support for H.323 conferencing.
- There is no announced embedded streaming server.
- There is no automatic coffee maker to keep people awake during meetings.

[Click here to share your views or ask questions on the features of the PictureTel 900 Series product.](#)

## Comments on the Announcement Itself

It's no secret that the July 31 announcement date represents a schedule slip. But it's also no secret that PictureTel was caught between a rock and a hard place. After the SwiftSite-II fiasco, the company could afford absolutely no slipup here.

Here is how I see the constraints facing PictureTel for this crucial product announcement:

- The product absolutely has to work flawlessly out of the box and meet its published specifications.
- The product has to be deliverable immediately.
- The announcement has to be preceded by hundreds of systems in the field being tested and evaluated under real-world conditions
- The announcement has to be accompanied by end user customer endorsements to give independent verification that the product is real.

I believe the engineering and market development teams have satisfied these constraints. Now let's see if the sales channels and customers respond. PictureTel has a long way to go towards regaining credibility in the market and in the channels; however we believe the PictureTel 900 Series is just what the doctor ordered.

Will PictureTel make it??? [Click here to share your views about the future of the company.](#)

**PictureTel's "People+Content™" – It Takes Two To Tango**

Information sharing and video conferencing have just never gotten along. Square peg, round hole. Every time I see a PowerPoint presentation on a videoconferencing screen I think why-o-why are we using a frame-rate-crazed but resolution-starved codec that's optimized for talking heads to try and send graphical information when it requires exactly the opposite? The current state of group information sharing is just plain ineffective – it's just not enough resolution. And the problem is compounded by being too hard to use to boot: add the confusion of scan converters (or pre-loading your presentation over a network), source selection, freeze-frame graphics, and ...ugh.

PictureTel's new People+Content squarely attacks this problem by treating information sharing as a completely different animal from talking heads, and capitalizing on the fact that the preferred device for sharing information has evolved from the document camera to the PC.

What is People+Content? Technically it's the combination of an XGA-savvy codec married to the real-time capture of the 900's PC screen, the capability to drive an XGA monitor, and (on the 970) ImageShare: a conference table device that's cabled back to the codec and contains both an audio and XGA input for the presenter's laptop PC, an XGA output for the conference room's XGA projector, and a single big blue button (fond memories of the Concorde's LAMB?).

People vs Content: Two Very Different Animals		
	People	Content
Motion	High	Low
Resolution	Medium: FCIF	Very high: XGA
Source	Video camera	PC, scanner
Monitor	NTSC, PAL; Interlaced	PC data; Progressive scan

How does it work in practice? Here's no less than three real-world scenarios:

- 1) A presenter hurries into the videoconference, notebook PC in hand, which is then connected up to the ImageShare's XGA in, just as if it were connected to the conference

room XGA projector. When it's time for the PowerPoint presentation, the presenter presses the blue button on the ImageShare, and the codec switches from transmitting FCIF People to XGA Content.

- 2) A presenter wants to call up a presentation from on the corporate LAN (or a web page). PowerPoint is used natively on the 900 to call up the presentation from the LAN (or a browser is used for a web page), and, using simple user interface menus, the 900's PC screen is sent to the codec as XGA input.
- 3) This one is truly "extra credit". A team wants to interactively collaborate on a Word document that's called up on the 900's screen. The user simply clicks on a special "share" icon placed on the title bar of every application running on the 900, and NetMeeting's application sharing uses a T-120 connection to share the document with the far end for true collaboration. Very easy, slick, and transparent.

*Here's What I Think*

Is People+Content perfect? Well nothing ever is. A 900 is needed on both ends of the call - although the XGA capture will work as a scan converter to FCIF-only capable systems. No multipoint bridge supports it - yet. And it's People *or* Content - Tandberg's "Duo Video" does both simultaneously. But, unlike Tandberg's "Digital Clarity", the 900 takes the big leap to treating information as PC-based data vs video by compressing XGA resolution rather than converting to a multiple of FCIF - thereby guaranteeing a pixel-by-pixel replica at the far-end, which is extremely important for WYSIWYG PC-based information sharing. The result is stunning.

People+Content marks a huge step forward in making group information sharing at a distance both effective and very easy to use. It matches today's real-world user scenarios very well. And, for those that want it, the NetMeeting integration for true collaboration is just above and beyond.

[What do you think of People+Content? Have questions? Click here to discuss.](#)