



New Media

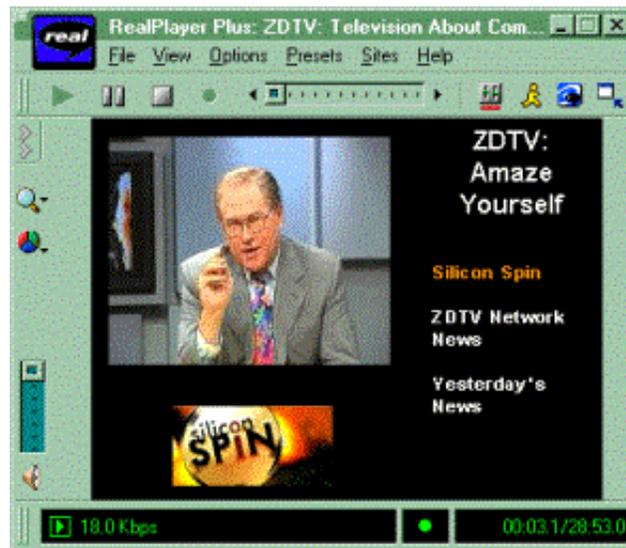
RICHARD KOLENDA

Internet video flowing quickly down the Stream

by Ric Kolenda

I'm too young to remember when television was young, but I do remember the introduction of color television. I was seven years old when I discovered that a neighbor had one of these wondrous new devices. I remember being amazed at how vibrant those old Hanna-Barbera cartoons were, and I just couldn't continue watching Road Runner on the old monochrome.

I believe we're approaching a similar technical leap in Internet video. By now many of us have seen those tiny, jerky images that have passed for video on the Internet. Over 60 million have downloaded the RealNetworks' RealPlayer, according to Real CEO Rob Glaser at the Real Networks Conference in May.



SMIL allows developers to create web-based applications that integrate and synchronize video, audio, graphics and text. (Courtesy of Ziff Davis, Inc.© 1999)

There are several factors that are making the Internet a viable means of delivering quality video content:

New Standards. RealNetworks (www.real.com) has taken the lead in creating standards for Internet video and multimedia. By creating or championing open standards such as RTSP and SMIL rather than clinging to proprietary technologies, the company has wisely positioned itself to continue to be the leader this growing

market. So what are these obscure standards and what do they mean for you? RTSP, or Real Time Streaming Protocol, is used to deliver various kinds of streaming media over the network. SMIL, or Synchronized Multimedia Integration Language, is a programming language for combining multimedia elements for streaming. More simply, RTSP and SMIL are to streaming media what HTTP and HTML are to Web pages. These open standards are allowing developers to create lots of innovative uses for streamed content.

New Technologies. Again RealNetworks is leading the charge. The introduction of its G2 player and server last year was arguably the biggest leap toward making quality video available broadly. G2 technology sends the highest-quality stream possible based on the end-users' connection speed at any given moment, and allows producers to automatically encode their video for many bandwidths. But they haven't stopped there. At the conference, Real announced new products and initiatives on proxy servers and Internet Protocol Multicast, both of which get high-quality video to the end-user more efficiently. Proxy servers allow copies of popular archived video content to be cached, or duplicated, at sites across the network, while IP Multicast allows end-users to in-effect share server a single stream of video from a server, which is particularly useful for live content.

Other technologies I found particularly interesting were the video searching software by Virage Inc. (www.virage.com) and video encryption by RPK Security (www.rpkusa.com). In some ways these aren't as exciting as, say, a lingerie fashion show, but the implications for business are huge.

Broadband Access. It's coming, and sooner than you think. The availability and adoption rates of cable modems and Digital Subscriber Lines (DSL) are growing rapidly. Business users are already accustomed to broadband access at work, which probably accounts for usage patterns that are much higher for users at work than at home. Meanwhile end-users are using faster and more powerful computers to access Internet content, making multimedia content more attractive. According to Glaser's conference keynote, half of the audience for digital media will have broadband connections by 2002.

Follow the Money. Business is taking notice of these trends, and the money is pouring into the Internet video market. Yahoo pays \$5.7 billion for Broadcast.com. Excite merges with cable content provider @Home. Microsoft announces a streaming media division. AT&T moves to expand its communications infrastructure by acquiring cable giant MediaOne while announcing a broadband initiative with Microsoft. In other words, the major players are weighing in, indicating the time has come for broader use of video on the Internet. The important thing to remember is that business users are still leading the way here, so don't be surprised if consumer video applications lag behind a bit.

So if you haven't experienced the latest in Internet video, I suggest you do so soon. It's still not ready for prime time for most of us bandwidth-challenged users, but if you're anything like me you'll be impressed by the possibilities. A good source for examples is the RealNetworks "RealGuide" (<http://realguide.real.com/>).

Ric Kolenda is the Founding President of the Philadelphia Area New Media Association (www.panma.org), a division of the Eastern Technology Council. He can be reached at nm_news@kolenda.com.

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