Microsoft Releases DirectShow SDK — Universal Playback for DVD, Digital Video and Audio, and the Internet

Leading Industry Vendors Announce New DirectShow-Based Products; Broad Support for DirectShow Exploits Sophistication and Ease of Use

NEW YORK — Dec. 10, 1997 — At Fall Internet World '97, Microsoft Corp. today released its DirectShowTM API SDK, a universal architecture for capture, control, processing and playback of multimedia streams, including digital audio and video, and animation data.

DirectShow provides a much-needed universal infrastructure for next-generation PC digital devices such as DVD players, DV cameras, and PC television tuner cards, in addition to providing a standard application programming interface (API) for a variety of industry software developers creating applications that take advantage of these devices. DirectShow also includes an ActiveXTM Control that can be embedded in Web pages and applications for instant playback of audio and video data in a variety of popular formats, including Intel Indeo Video, Intel Indeo Audio, MPEG, AVI, MOV, WAV, AIFF and AU.

The DirectShow run time is available now for the Windows® 95 and Windows NT® version 4.0 operating systems and is integrated into Microsoft Internet Explorer 4.0. DirectShow will ship with the upcoming Windows 98 and Windows NT 5.0, ensuring wide compatibility for playback of all types of content from over the Internet, intranets and next-generation PC devices.

"By providing a universal playback architecture, DirectShow enables the industry to move forward in a compatible way and lowers the risk for developers to innovate a new genre of features and creative applications," said Leslie Evans, product manager for DirectX at Microsoft.



"In addition, DirectShow provides developers with a standard interface, a host of software drivers and a broad distribution platform to ease development and ensure the widest customer reach for applications and devices."

DirectShow is a key component of Microsoft's newly released DirectXTM 5.1 Media SDK for Intel Architecture, which, along with DirectX 5.0 Foundation, comprises the unified family of DirectX 5 multimedia APIs. DirectShow works in concert with DirectX Foundation to deliver accelerated multimedia playback to the PC. DirectShow has already earned broad adoption, with many top vendors of consumer electronics and computer products announcing DirectShowenabled products, including The Duck Corp., FutureTel, Intel Corp., Mediamatics, MGI Software, Rockwell Semiconductor Systems, Sonic Foundry Inc., Ulead Systems Inc., and White Pine Software.

Support for Next-Generation Technologies

The contemporary design of DirectShow offers a comprehensive, versatile approach for developing next-generation hardware and software solutions. Today, developers can take advantage of built-in support for the latest devices, standards, codecs and file formats, including these:

- **DVD.** DirectShow provides an easy-to-use standard API for playback of DVD-video content. DirectShow frees developers from MCI extension incompatibilities and insulates developers from differences in various DVD playback configurations such as hardware-only, software-only or hybrid decode. DVD-specific DirectShow filters eliminate the need for developers to use proprietary navigators or other nonstandard components. This ensures the widest possible compatibility of DVD titles for the PC, while still enabling third-party content enhancements through the DirectShow filter graph.
- **Digital Video (DV).** DirectShow support for the DV standard opens the door for software developers to broaden high-quality video authoring solutions from the professional market to the business presentation and consumer market. Today's plug-in support and Windows 98 direct support for the IEEE 1394 standard lower the price barriers for users to connect DV video cameras to their PCs for recording,



- playback and editing. Time-stamped DirectShow streaming media can be layered in multiple video tracks, composited with animation, or enhanced with DirectSound for multitrack audio and spacial sound effects.
- **Broadcast PC.** Equipped with DirectShow, a television tuner card and Windows 98, the broadcast-enabled computer will blend television with a new world of interactive entertainment and information possibilities. The extremely flexible "filter" architecture of DirectShow manages the process of receiving, decoding, transforming, scheduling and displaying interdependent video, audio, and data streams. With nearly all the technology and infrastructure currently in place, applications are being authored to allow users to interact with shows, express opinions, test knowledge and game skills, and obtain stock quotes, sports scores, news, software upgrades and whatever else they choose to subscribe to.
- **Popular codecs and file formats.** DirectShow supports cutting-edge codecs such as Intel's Indeo Video Interactive, The Duck Corp.'s TrueMotion 2.0 video, and a variety of third-party MPEG-2 video and AC3 audio decoders, such as Mediamatics' DVDExpress A/V Pak, for theater-quality movie playback via DVD. The DirectShow run time natively supports a variety of popular formats, including MPEG, AVI, WAV AIFF, AU, and plays Apple QuickTime (MOV) files in place.
- Internet playback. The DirectShow client-side optimization becomes increasingly important as streaming media technology continues to evolve on the Internet and intranets. DirectShow will become the universal client for the Advanced Streaming Format (ASF) supporting future versions of NetShow™ Player and other Internet streaming players. DirectShow provides a solution to bandwidth limitations for richer multimedia playback. The ability to take advantage of progressive download, client-side hardware acceleration and devices like CD and DVD greatly expands the breadth of hybrid Internet applications and vastly enriches end-user experience.

Comprehensive Media Processing Architecture

DirectShow provides title developers and tools vendors with a versatile, easy-to-use "filter" architecture for processing streaming media at all stages from capture to rendering.

DirectShow enables capture of video and audio data streams with support for both Video for Windows-based capture and Windows Driver Model-based capture. Using the DirectX Media 5.1 SDK, developers can custom-design or use third-party DirectShow filters for specialized tasks, which makes it easy to add differentiating features to products and develop plug-ins for DirectShow-compatible applications. With a common infrastructure in place, end users can capture multimedia data from peripheral devices such as VCRs, cameras and MIDIs, then view



it, listen to it, or save it to their hard drive for use with an expanding market of innovative image video- and audio-editing applications.

Founded in 1975, Microsoft (NASDAQ "MSFT") is the worldwide leader in software for personal computers. The company offers a wide range of products and services for business and personal use, each designed with the mission of making it easier and more enjoyable for people to take advantage of the full power of personal computing every day.

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Note to editors: If you are interested in viewing additional information on Microsoft, please visit the Microsoft Web page at http://www.microsoft.com/presspass/ on Microsoft's corporate information pages.



Industry Leaders Applaud DirectShow

Leading vendors of hardware and software products announced support for DirectShow and new DirectShow-enabled products:

"Adaptec is very excited about DirectShow and we are committed to supporting our strategy around DV and 1394 technology."

Adam Silver
 Marketing Manager
 Advanced Media Products Group
 Adaptec Inc.

"The DirectX APIs help ATI Technologies combine multiple media types together to bring comprehensive multimedia solutions together on the PC. With DirectShow for video capture and TV streaming and Direct3D® for gaming, ATI has transformed the PC into the ultimate entertainment platform for consumers."

Alfonse Licata
 Product Marketing Manager
 Graphics and Multimedia Software
 ATI Technologies Inc.

"DirectShow support for our TrueMotion 2.0 video codec means that PC users everywhere can now enjoy full-color, full-screen, full-motion video for games, streaming applications and other multimedia applications. This is a great opportunity for game developers and multimedia content creators to deliver compelling titles for a broad target audience of Windows users. Microsoft and The Duck Corp. have made this possible in an authoring environment that allows for problem-free development and accelerated time-to-market."

Stan Marder
 Chief Executive Officer
 The Duck Corp.

"FutureTel is advancing products like the multimedia suite, Video Sphinx Pro for business and Internet professionals, that depend on standards — and Microsoft lays the standards foundation with DirectShow. DirectShow eliminates proprietary bottlenecks and enables plug-and-play capability for FutureTel customers, from consumers who wants to add video to their Web pages to professionals sending their multimedia presentations back to the home office."

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