

PRESS RELEASE

Contact:

Tay Vaughan or Jim Edlin

The HyperMedia Group

415/601-0900

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PROGRESS TOWARD HYPERMEDIA FILE STANDARD

Representatives and observers from nearly two dozen key vendors of multimedia software and hardware met at a two-day conference in San Francisco at the end of January to agree upon further development and broader support for the Hypermedia Interchange File Format™, known as HIFF™.

The HIFF format is a specification for comprehensively describing the form and content of documents and applications created by object-oriented multimedia or hypermedia applications. Its purpose is to facilitate the transfer of such documents and applications to other computer environments with similar capabilities. The conference was hosted by The HyperMedia Group, originators of the HIFF format.

Participants in the HIFF Advisory Committee meeting represented a broad cross-section of multimedia software and hardware vendors including Asymetrix Corp. (*Toolbook®*), Authorware (*Authorware® Professional™*), Brightbill-Roberts (*HyperPAD®*), CEIT Systems (*Authology™*), Claris Corp. (*HyperCard®*), Echelon Development (*WindowCraft™*), MacroMind (*Director™*), Progress Software, Silicon Beach Software / Aldus (*SuperCard™*), Spinnaker Software (*Plus™*), and Thoughtful Software (*HyperCube™*). Apple Computer, Digital Equipment Corp., Hewlett-Packard, IBM, Sony, as well as the American National Standards Institute (ANSI) joined the conference as observers.

Consensus on three general goals emerged from the conference:

Goal 1: Continue technical development work on a future version of the HIFF format which will allow the common or shared elements of those applications represented by the vendors at the meeting to be written to a file format understood by all. And for elements outside of this minimum common framework, the HIFF format structure will provide extensibility to enable appropriate descriptions of the exceptions to this common structure. Participating vendors offered to make necessary resources available for refinement of this new format standard.

Goal 2: Representatives would recommend to their companies that their products incorporate a minimum level of import and export support for this future version of the HIFF format.

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Goal 3: Current responsibility for development and maintenance of the HIFF standard should remain with The HyperMedia Group, but adoption by a sanctioning body such as ANSI will be explored. One development possibility found inviting by many attendees was structuring future versions of HIFF to conform to the existing description syntax of SGML (Standard Generalized Markup Language). This interest stemmed from a detailed technical presentation by Dr. Charles Goldfarb, principal author of SGML.

At the conclusion of the conference, attendees agreed upon a schedule of target dates for steps leading to implementation of a version of HIFF which may be broadly supported by multimedia software vendors. If this program proceeds on schedule, products which provide interoperational exchange capability using the new format will be available later in 1991.

"Can you imagine a word processor that does not export its files *at least* to an ASCII format readable by other word processors?", asks Tay Vaughan, Senior Partner at The HyperMedia Group. "Object-oriented multimedia applications are becoming indispensable and powerful tools for users of graphical interfaces on many hardware platforms. Now is the time, while this new genre of software is but a few years old and still malleable, to define commonalities and standard description techniques so that the end users of multimedia software can retain the functionality of their developed applications across different programming environments, operating systems, and hardware platforms."

The HyperMedia Group is a custom development organization based in Emeryville, California. It originated the concept and initial specification of HIFF in connection with its development of *ConvertIt!*, a tool for porting hypermedia documents among environments. *ConvertIt!* currently supports exporting from Apple/Claris' *HyperCard* 1.x and importing to Asymetrix's *ToolBook* and is available from Heizer Software of Pleasant Hill, California.

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BACKGROUNDER

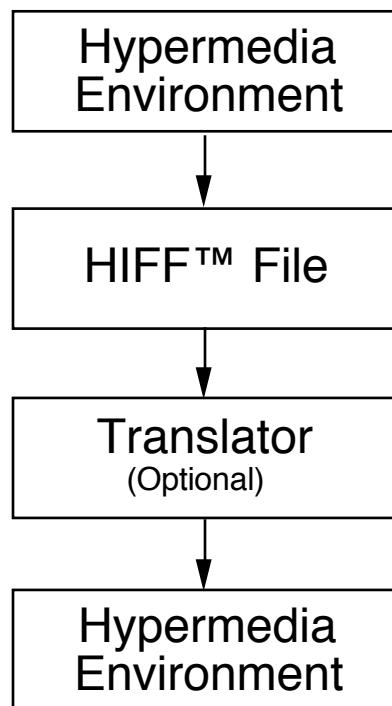
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HYPERMEDIA INTERCHANGE FILE FORMAT (“HIFF”) ALLOWS APPLICATIONS TO EXCHANGE DOCUMENTS

HIFF™ (Hypermedia Interchange File Format™) is a standard method of representing the information required to transport interactive hypermedia documents/applications among dissimilar display and authoring environments, operating systems, and hardware platforms. Hypermedia documents contain multimedia data (such as text, images, moving images, and sounds) combined with information which allows a “reader” to navigate and interact with these data.



The HIFF format was created by The HyperMedia Group in 1990 as an adjunct to development of a hypermedia document translation product *ConvertIt!*™. While this translation product, in its initial release, was limited and quite specific in scope — enabling translation of documents created in one application (*HyperCard*®) for use with another, similar application on another hardware platform (*ToolBook*®) — it seemed beneficial to base the product design on a genericizable, extensible file format with potential to evolve into an industry standard.

The current version of HIFF incorporates methods for embedding data representing elements of hypermedia documents, such as images, text and sound, using an open-ended set of externally-defined standard data and resource formats. Data formats such as Microsoft's DIB (Device Independent Bitmap) and RTF (Rich Text Format), Apple Computer's PICT (Macintosh graphic format), the IFF audio interchange format, and other similar data structures, including the extensions developed for multimedia by Microsoft, can be readily incorporated within a HIFF file.

In current practice, either an exporter application or the source application itself describes a source document's parts and functions in a tagged ASCII file using the HIFF format. This ASCII file is then made available to the second environment (transferred physically or electronically) where the original document is recreated by either an importer application or the target application. The imported document is a "best available" translation within the constraints of feature set differences.

The HIFF format was designed such that it might contain other standard formatted data or elements of data, and it is inherently extensible. Within the world of object-oriented programs it offers a framework for application and resource transferability and connectivity, regardless of platform or environment. Copies of Version 1.0 (17 July, 1990) of the HIFF Specification are available from The HyperMedia Group, 5900 Hollis Street, Suite O, Emeryville, CA 94608 — (415) 601-0900.



Attendees: Steve White, Asymetrix; Joe Fantuzzi, Authorware; Bill Fisher, Brightbill/Roberts; David Duncan, CEIT Systems; Rob Smith, Apple/Claris; Jesse Grodnik, DEC; Michele Gambier, DEC; Carlos Suarez, DEC; Ralph Ryan, Echelon; Brian Molyneaux, Heizer Software; Ted Laliotis, Hewlett-Packard; David Spitzer, Hewlett-Packard; Tay Vaughan, HyperMedia Group; Hal Wine, HyperMedia Group; Jim Edlin, HyperMedia Group; Eric Alderman, HyperMedia Group; Jeff Stark, IBM; Charles Goldfarb, IBM; Dan Horn, Macromind; Glenn Meader, Progress Software; Kevin LaRue, Silicon Beach/Aldus; Gary Poppitz, Silicon Beach/Aldus; Chris Watson, Silicon Beach/Aldus; Tac Sugiyama, Sony; Neal Goldman, Spinnaker; Doug Simons, Thoughtful Software.