

# An Introduction to MPEGIF Interop and Logo Programs

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## Overview

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# MPEGIF Interoperability Working Group

## What is MPEGIF?

- "A non-profit group with the goal of furthering the adoption of MPEG standards"
- Founded in May 2000. Currently ~80 member companies.

## What does MPEGIF do?

- Promote MPEG standards (MPEG-4, MPEG-7, MPEG-21)
- Provide a central point for information
- Promote discussion about MPEG standards  
(e.g. technical Q&A, patent issues, etc)
- Organize MPEG-related tutorials, exhibitions, and trade show events
- Carry out interoperability tests
- Provide Logo Qualification program
- More info at [www.mpegif.org](http://www.mpegif.org)

## MPEGIF Interop: What is it?

- A Working Group with the mandate to plan and execute interoperability tests based on MPEG-4 technologies
- Created at 5<sup>th</sup> MPEGIF (then M4IF) meeting – Nov 2000
- Completed 5 rounds of interop testing
- Current activity:
  - **6<sup>th</sup> round of testing began October 2004**

## MPEGIF Interop: Who participates?

- The following companies participated in previous rounds:

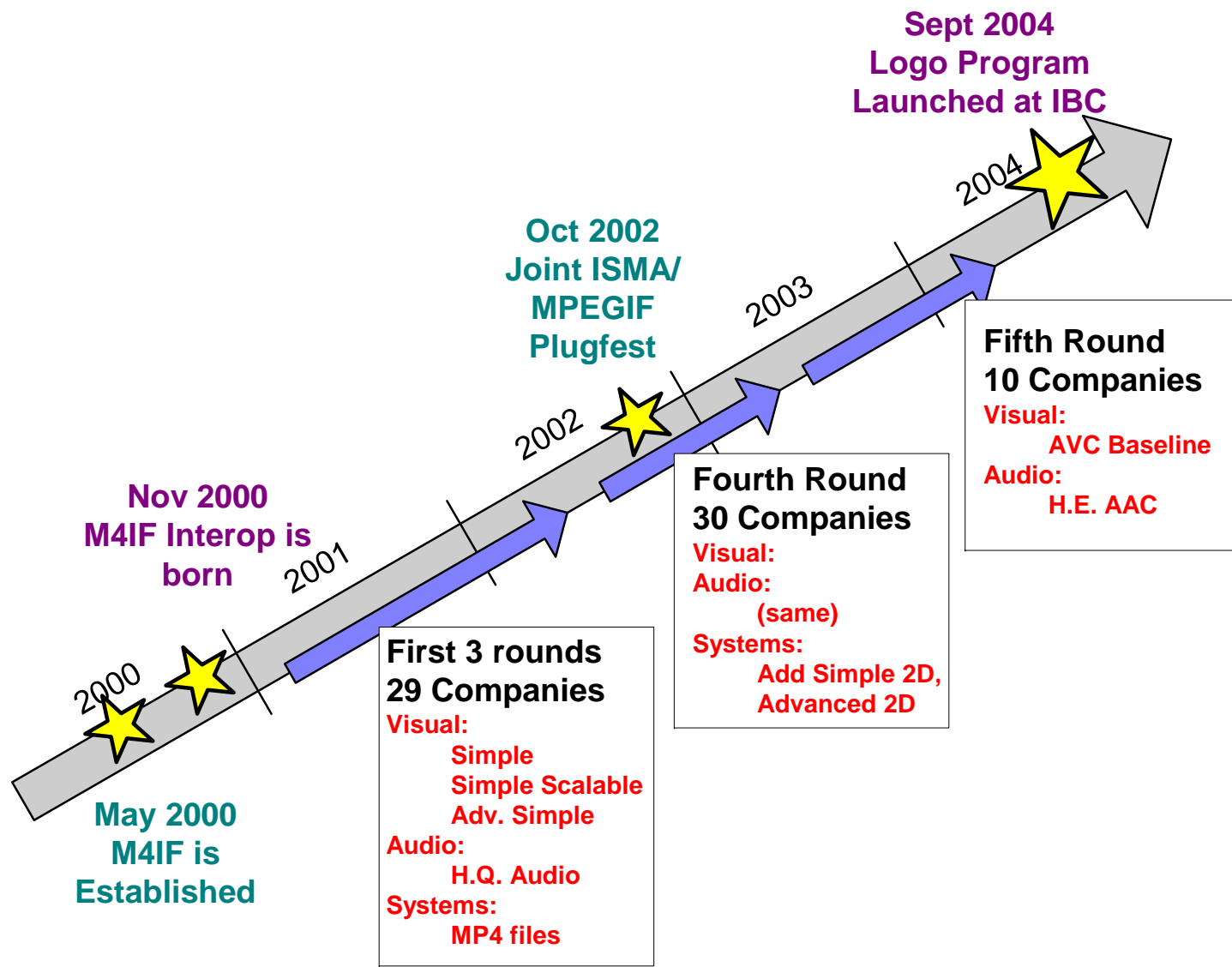
Ahead Software, Amphion, Apple Computer, Avipix, Cirrus Logic, Comverse, Diamondback Vision, Dicas, Divio, DivX Networks, Emblaze Systems, Ecole Nationale Supérieure des Télécommunications, Envivio, Fraunhofer IIS-A, Hantro, IBM, iVast, Luxxon, Mainconcept, Motorola, MTREC, NeoMagic, OnTimetek, Pace Soft Silicon, Philips, Pixtree, PacketVideo, Reakosys, Samsung, Serome Technology, Sorenson Media, Thomson Multimedia, TILAB, TVIA, VideoSpheres, Vsoft, WebCast Technologies

(Compiled from public press releases over the past few years)

## How does MPEGIF Interop work?

- By consensus
  - Test rounds are planned
  - Target codecs, profiles & levels are identified based on interest
  - Test specs are developed as needed
- Conference calls and occasional live meetings
- Emails exchanged on private WG reflector
- Testing to date
  - **Mostly file exchange (MP4's and raw bitstreams)**
  - **A bit of streaming (e.g. joint plugfest with ISMA, Oct 2002)**

# A Brief History of MPEGIF Interop Group



## Current Activity: 6<sup>th</sup> round of testing

- Summary:
  - ↳ Codecs:
    - ↳ MPEG-4 AVC/H.264
    - ↳ AAC, High Efficiency AAC, and AAC BSAC
  - ↳ File exchange (bitstream & MP4)
  - ↳ Open to all MPEGIF member companies
  - ↳ About 30 companies signed up to date
- Schedule:
  - ↳ File posting began October 25<sup>th</sup>
  - ↳ Testing of decoders begins November 8<sup>th</sup>
  - ↳ Testing and problem resolution will continue until mid-December
  - ↳ Face-to-face test event December 6-7  
(ISMA, MPEGIF and IMTC joint event)

## ISMA / MPEGIF / IMTC Joint Testing Event

- Logistics:
  - December 6-7
  - Hawthorne, New York, USA (hosted by IBM Research)
  - Coincident with ISMA Forum meeting
- Testing Plans
  - Various codecs including H.E. AAC and MPEG-4 AVC/H.264
  - Bitstream & MP4 exchange
  - Streaming transport, including RTP payload format for AVC

## Contact information

If you have questions about MPEGIF interop, or if you would like to participate, feel free to contact the group chairs:

- Jae-Seob Shin ([jsshin@pixtree.com](mailto:jsshin@pixtree.com))
- JeongHoon Park ([jeonghoon@samsung.com](mailto:jeonghoon@samsung.com))
- Ralph Neff ([neff@pv.com](mailto:neff@pv.com))

# MPEGIF Logo Qualification Program

## Logo Qualification Program: What is it?

- MPEGIF provides a procedure by which companies may **qualify** MPEG-4 encoder and decoder products
- Qualified products have earned the right to carry a logo provided by MPEGIF
  - ↳ **Logo** may appear on the product, on product packaging, and on related documentation or datasheets.
  - ↳ Product will be listed in a web-based **MPEGIF Qualified Products Directory**, along with details (e.g. for which codec/profile/level combinations was it qualified?)



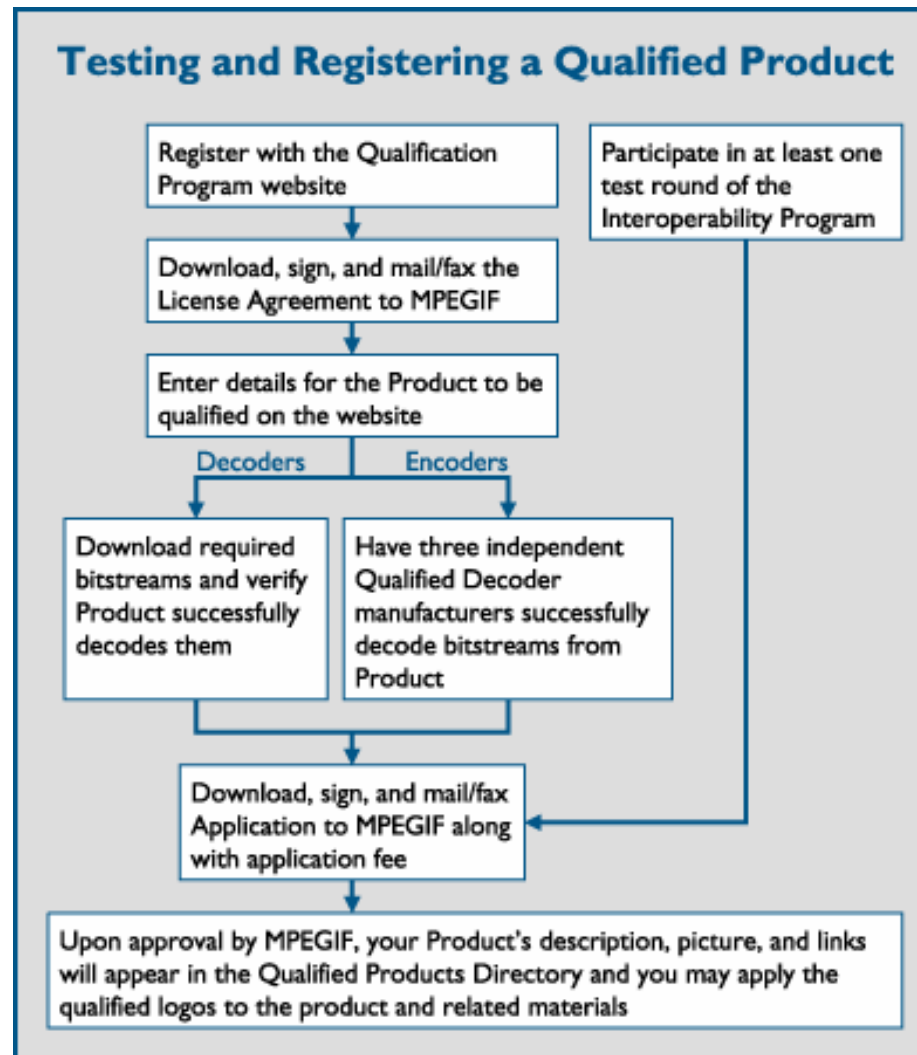
## What are the benefits of the program?

- Sign of a quality-tested product
  - Interop forums exist, as do conformance bitstreams, but there is currently no easy way to show that a product has made use of these valuable test resources. This is what our logo provides.
- Promote MPEG-4 brand awareness
- Encourage participation in MPEGIF Interoperability
- Encourage growth of industry by building confidence that products will interoperate
- Provide marketing value to participating MPEGIF member companies

## How does it work?

1. Member company registers on Logo Program site
2. Company signs and returns Logo Program Agreement
3. Company completes testing requirements for product
  - ↳ (details on next slide)
4. Company enters product-specific details on web site
5. Company returns supporting forms & pays the logo fee
  - ↳ \$1000 to register a product
6. Application is approved; product details appear in the online **Qualified Products Directory**

A bit more visually...



## What are the testing requirements?

- Product must complete 1 round of testing within MPEGIF Interoperability Group
- Product must undergo an additional verification step:
  - **Decoder products** must be able to correctly decode all streams in the relevant Qualification Stream Set. The set is typically composed of published conformance streams and streams which have been qualified through testing within MPEGIF Interop.
  - **Encoder products** require Qualification Endorsements from three other companies with qualified decoder products. The endorsement says that the decoder company was able to successfully decode a sufficient set of relevant streams generated by the encoder.
- Note the program is based on **Self-Certification**. In signing the agreement, the company attests that the above steps have been completed.

## What codecs, profiles and levels are supported?

- Supported Codec/Profile/Level combinations are based on
  - Interest from participating companies
  - Combinations which have been tested in MPEGIF Interop group
- Initial Support:
  - AVC Visual (14496-10), all profiles and levels
- Program designed to quickly add new codecs/profiles/levels
  - Likely candidates: H.E. AAC, AAC, MPEG-4 Visual
- If you are interested in qualifying a product for a combination that isn't yet supported, please tell us your needs. **(To find out how, visit the Logo Program web site!)**

## Do I have to be an MPEGIF member?

- To participate in the program and carry the logo on your product, you must be an MPEGIF member.
  - ↳ This is true for MPEGIF Interoperability Group participation as well; both are benefits of membership.
  - ↳ Fortunately it's easy to join -- see [www.mpegif.org](http://www.mpegif.org) for more information about membership.
- However, you do not have to be a member to browse the **Qualified Products Directory**; this resource will be open to public view.

## Where can I get more information?

- The Logo Program web site:

<http://logo.mpegif.org>

- If you have questions:
  - Send them by email to: [logoAdmin@mpegif.org](mailto:logoAdmin@mpegif.org)
  - Or contact Ralph Neff [neff@pv.com](mailto:neff@pv.com)

## Look to the Future

- Logo Program to expand beyond AVC
- Interop and Logo programs are intertwined, and will work closely to support each other
- Expect to see this symbol soon, on a product near you...

