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**FOR IMMEDIATE RELEASE**

**Leading Companies Establish Content Reference Forum to Help Eliminate Barriers  
in Global, Cross-Platform Digital Content Distribution**

*Group Issues First Set of Specifications for Review*

**NEW YORK—December 10, 2003—** In a move that will positively impact the global digital content market, leading technology and content-related companies have established the Content Reference Forum (CRF) to develop a universal way to distribute digital content across various mediums and geographies. The group, founded by ARM, ContentGuard, Macrovision, Microsoft, Nippon Telegraph and Telephone, Universal Music Group and VeriSign, marks its initial efforts by issuing its first set of technology specifications for public review available at [www.crforum.org](http://www.crforum.org).

There is currently a lack of interoperability between digital content technologies that makes it challenging for consumers to easily get the content they want, in the format, platform and other preferences they choose. Additionally, there is currently no technology framework in place that allows all market participants to ensure that the business agreements they make are respected. The Content Reference Forum seeks to address these issues by creating both a technical and business framework to achieve interoperability across multiple technology platforms, and enable new business models. The vision of the CRF is for consumers to enjoy as well as redistribute content with commercial terms beneficial to all members of the value chain.

At the crux of this architecture are “Content References,” data packages that uniquely identify content and the context in which it will be used. Content References are resolved by “Reference Services” that determine the right content, user context (including rendering environment, language and location) and commercial terms of usage. While the current work of the Content Reference Forum addresses distribution of entertainment content, the same principles can be applied to many other industries and applications.

The Content Reference Forum’s first set of specifications, **CRF Baseline Profile v1.0**, focuses on digital content distribution on Internet-enabled computer platforms. At the core of the specifications are formats of Content References and a profile of the Contracts

Expression Language (CEL), a language created by the CRF to express and enforce complex contractual agreements. Specifications for the Content Reference Forum are being harmonized with relevant standards from MPEG, OASIS, W3C and WS-I. The CRF is also working to harmonize CEL with international e-business standards through the UN/CEFACT.

“An interoperable, context-sensitive, contractually-driven global digital content distribution market is universally desired, yet remains unaddressed. Presently, we are unable to efficiently implement systems that can enable new business models and represent the legitimate interests of all participants; content owners, distributors, technology suppliers, and consumers,” said Michael Miron, Content Reference Forum President and CEO of Content Guard. “The Content Reference Forum was established to find a solution to this challenge that will ultimately help everyone in the distribution chain. We encourage companies to take an active role in CRF’s efforts by providing feedback to our specifications, as well as joining us in helping to foster a dynamic marketplace for digital content.”

The Forum plans to release the final version of the CRF Baseline Profile v1.0 and design guidelines in mid-2004, and will continually add and release new specifications for public review. Future versions of the CRF Baseline Profile will address standards for areas such as event reporting, payment services, registration of value chain participants, etc. In addition, the CRF plans to develop profiles for non-PC platforms, such as mobile phones and set-top boxes.

Details on CRF Baseline Profile v1.0 and the Content Reference Forum are available at [www.crforum.org](http://www.crforum.org).

#### **About the Content Reference Forum**

The Content Reference Forum (CRF) is a newly formed standards group of leading technology and content-related companies chartered to develop a universal way to distribute digital content across various mediums and geographies. Its goal is to create a dynamic marketplace where consumers can get and share the right content for their platform and preferences, and where underlying commercial agreements and rights are respected. CRF promotes the adoption of specifications and design guidelines, leveraging existing standards, to create an open framework for interoperable, platform- and business model-independent digital content distribution. Current member companies are ARM, ContentGuard, Macrovision, Microsoft, Nippon Telegraph and Telephone, Universal Music Group and VeriSign. For more information, visit [www.crforum.org](http://www.crforum.org).

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