

The SMPTE Registration Authority, LLC

New technologies generally bring with them new capabilities, the benefits of which are not all recognized and not exploited, at least initially. Many of these new capabilities also require the development of supportive, but separate, infrastructures if they are to ever be realized. The widespread adoption of MPEG as a transport mechanism for moving images, and of the ATSC transmission standard in North America, for example, both present us with additional opportunities and challenges, some of which require a form of initial industry support if they are ever to become realized.

Purpose

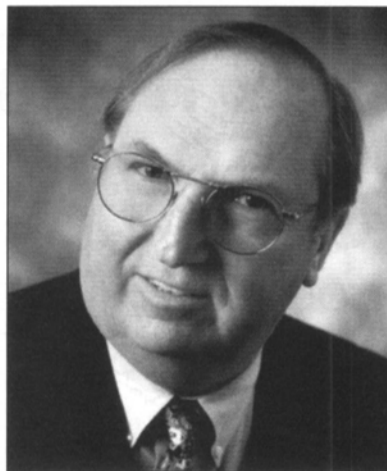
The MPEG and ATSC data structures have the capability to carry with them considerable additional intelligence about the data they transport. Much of this is immediately useful in optimizing the further processing of the data, but some of it relates to information about the data that can be utilized for other purposes. Of particular interest to your Society is the maintenance of a registry of certain forms of unique and valuable information about the data that are being transported.

It's of interest to SMPTE because this Society is well established and fully involved in many of the aspects of motion imaging which these technologies serve, and can provide a knowledgeable and neutral repository of common information that can be made accessible to all interested parties. As additional support to our industry, your Society can also share certain operating efficiencies with the registration activity and, because of its nonprofit character, offer lower costs.

Activities of the Registration Authority

We have talked about this before. In fact, when Stan Baron, then President, reported on developments in this area in an earlier *Journal*, he pointed out that both MPEG and ATSC had encouraged SMPTE to establish such a service (see p. 531, this issue). The registration authority Stan foresaw is now a reality. Under the guidance of Engineering Vice-President Bill Miller, and with the active involvement of several members of headquarters staff and financial assistance in the form of a government grant, the SMPTE Registration Authority is now up and running as a separate operation. Initially it will be providing support, mainly, in the area of registering MPEG-2 formats. Later its main activity may be the registration of program material, which will become increasingly important to the industry as more of the benefits of the digital transport streams are realized.

With regard to MPEG, the SMPTE Registration Authority, LLC, is the designated registration authority



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for ISO/IEC 138-1:1996 Information Technology—Generic coding of moving pictures and associated audio information—Part 1: Systems, and is authorized by the ISO to register MPEG-2 “format_identifiers.” The registration descriptor will enable MPEG-2 users to carry all kinds of information and have access to an unambiguous 32-bit identifier of the characteristics of the underlying data, even when it is not in an internationally recognized format.

For the ATSC, the SMPTE Registration Authority, LLC, is the registration authority for ATSC Standard A/57—Program/Episode/Version Identification. As such, SMPTE RA will register assignment of “provider_index” and “program_event_id number” or Program Identifier. These data are additional 64-bit descriptors contained in packets identified in the MPEG Program Map Table (PMT). The descriptor is divided into a 16-bit provider index, a 24-bit program event id and a 24-bit episode and version number.

The Registration Authority has been organized as a separate nonprofit venture overseen and operated by your Society. It offers a valuable service to our industry, one that will increase in value over time, and, at the same time, helps to strengthen SMPTE. It's a win-win situation all around. It will prove to be an important service in the future and I'm pleased that your present board has both recognized the need and addressed it. It's one more example of the industry support and leadership SMPTE provides.

The Registration Authority has a new website of its own at <http://www.smp-te-ra.org>. Check it out.

A handwritten signature in black ink, appearing to be 'D. George', with a long horizontal line extending to the right.

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