

For expanded coverage of this month's topic "Compression," you can find the following paper in the Digital Edition. Visit the SMPTE digital library at <http://journal.smpte.org> to access the issue and to read this additional paper.

The xvc Video Codec—A Revolutionary Software-Defined Video Compression Format

By Jonatan Samuelsson

Efficient video compression is a key technology component that enables high-quality media services across different platforms and connection types. Several different video codecs have been used since the start of TV

digitalization, and more efficient compression methods are constantly being developed. This paper focuses on mobile video streaming applications, a rapidly growing application area for which it is absolutely crucial to use the network resources as efficiently as possible. However, compression efficiency is not the only factor that determines which video codec is best suited to be used. There needs to be a clear and reasonable licensing scheme, the encoding complexity needs to be at a manageable level, and most importantly, the receivers must be able to support decoding of the codec. The xvc codec is a software-defined video compression format which, in our tests, delivers unprecedented compression performance, is available with a single reasonable license and with a light-weight decoding process that can be run in software on today's mobile phones and tablets.



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photographers had been variously rated as ship's cooks, pharmacist's mates, gunners and aviation printers...By its commercial use, for both entertainment and journalism, it became one of the most important media of modern communication...In December, 1943...about one-fourth of the ship's company is composed of members of the Women's Reserve." For the full article, see: <https://ieeexplore.ieee.org/document/7252096>

100 Years Ago in the Journal

The October 1919 *Journal* published in "Selection of Proper Power Equipment for the Modern Motion Picture Studios" by H. F. O'Brien and H. A. Campe: "The new studios have decided from either their own experience or that of others, that it is an

economical proposition for them to have their studios so equipped that a sufficient supply of electrical energy will be available for the proper illumination of their stages. During the past two years, there has been a general tendency toward using more artificial illumination in the studio, almost to the total exclusion of sun light. During this period, there has also been a great tendency to unify the electrical installations so the same nature of current is used throughout, irrespective of the nature of supply current. Some studios, particularly the new ones, in and about New York are being equipped with direct current exclusively. The large power companies, except in restricted zones, are making the extensions of their power distribution system,

alternating current, and in fact, have replaced most of their old direct current distribution systems with alternating current. These tendencies have forced most all of the studios to install their own substations for converting the alternating current supply to direct current. Except in certain portions of New York City, there are very few studios located where they can obtain sufficient direct current to meet their requirements, but nearly every studio is located where alternating current can be purchased in sufficient quantity so that the easiest and most economical means of obtaining direct current is to purchase alternating current power and convert it." For the full article, see: <https://ieeexplore.ieee.org/document/7230002>

