Supporting Rights Checking in an MPEG−21 Digital Item Processing Environment (FriPmPO1)

Author(s):
Frederik De Keukelaere (Ghent University, Belgium)
Thomas DeMartini (ContentGuard, United States of America)
Jeroen Bekaert (Ghent University, Belgium)
Rik Van de Walle (Ghent University, Belgium)

Abstract:
Within the world of multimedia, the new MPEG−21 standard is currently under development. The purpose of this new standard is to create an open framework for multimedia delivery and consumption. MPEG−21 mastered the multitude of types of content and metadata by standardizing the declaration of Digital Items in an XML based format. In addition to standardizing the declaration of Digital Items MPEG−21 also standardizes Digital Item Processing, which enables the declaration of suggested uses of Digital Items. The Rights Expression Language and the Rights Data Dictionary parts of MPEG−21 enable the declaration of what rights (permitted interactions) Users are given to Digital Items. In this paper we describe how rights checking can be realized in an environment in which interactions with Digital Items are declared through Digital Item Processing. We demonstrate how rights checking can be done when “critical” Digital Item Base Operations are called and how rights context information can be gathered by tracking during the execution of Digital Item Methods.