

Title	4K digital cinema : how to fully integrate a professional technology into an innovative artwork in order to present a future standard of digital cinema
Sub Title	
Author	Delmotte, Fabien(Inakage, Masahiko) 稲蔭, 正彦
Publisher	慶應義塾大学大学院メディアデザイン研究科
Publication year	2010
Jtitle	
JaLC DOI	
Abstract	Based on the threshold of an historic transformation in digital cinema , the author joined in an innovative project at the Graduate School of Keio Media Design which aims at evaluating 4K, a future standard of digital cinema. The author and his team were involved in the creation of a 4K workflow in order to create a 4K artwork portraying two short movies. The action research focuses on explaining the process of using 4K technology in a systematic manner, from the definition of 4K digital cinema to the analysis of 4K production, 4K post-production and 4K playback. Throughout the series of actions to achieve the final-cut in 4K resolution—4096 x 2160 pixels—, we encountered several issues that will be exposed in this research. Yet, even though 4K enjoys widespread recognition as a desirable standard, some may suggest that 2K digital cinema projection—2048 x 1080 pixels—is sufficient.
Notes	修士学位論文. 2010年度メディアデザイン学 第99号
Genre	Thesis or Dissertation
URL	<a href="https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=KO40001001-00002010-0099">https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=KO40001001-00002010-0099</a>

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

# MASTER'S THESIS

## **4K Digital Cinema: How to Fully Integrate a Professional Technology into an Innovative Artwork in order to Present a Future Standard of Digital Cinema**



KEIO MEDIA DESIGN®

Academic Year 2010

Graduate School of Media Design - Keio University

by Fabien Delmotte



# THESIS COMMITTEE

Master's Thesis submitted in partial fulfillment of the requirements for the degree of MASTER of Media Design at the Graduate School of Media Design, Keio University.

Fabien Delmotte

---

Dean Masa Inakage - Supervisor

---

Professor Naohisa Ohta - Co-supervisor

---

Professor Adrian David Cheok - Member

---

# **4K DIGITAL CINEMA: HOW TO FULLY INTEGRATE A PROFESSIONAL TECHNOLOGY INTO AN INNOVATIVE ARTWORK IN ORDER TO PRESENT A FUTURE STANDARD OF DIGITAL CINEMA**

## **ABSTRACT**

Based on the threshold of an historic transformation in digital cinema , the author joined in an innovative project at the Graduate School of Keio Media Design which aims at evaluating 4K, a future standard of digital cinema. The author and his team were involved in the creation of a 4K workflow in order to create a 4K artwork portraying two short movies. The action research focuses on explaining the process of using 4K technology in a systematic manner, from the definition of 4K digital cinema to the analysis of 4K production, 4K post-production and 4K playback. Throughout the series of actions to achieve the final-cut in 4K resolution—4096 x 2160 pixels—, we encountered several issues that will be exposed in this research. Yet, even though 4K enjoys widespread recognition as a desirable standard, some may suggest that 2K digital cinema projection—2048 x 1080 pixels—is sufficient.

**KEYWORDS:** 4K, Technology, Digital Cinema, High resolution, Workflow, Production, Post-production, Playback, Narrative.

**GRADUATE SCHOOL OF MEDIA DESIGN, KEIO UNIVERSITY**

**FABIEN DELMOTTE**