ISO/TR 19263-1:2017-03 (E)

Photography - Archiving systems - Part 1: Best practices for digital image capture of cultural heritage material

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Analysis of image quality 1
2.1 General 1
2.2 Image quality characteristics 1
2.3 ISO 19264 Test chart technical features 2
2.4 Grid and gray/white features 2
2.4.1 General 2
2.4.2 Running scale features (cm and inches) 3
2.4.3 Grayscale and running gray/white/black bar features 3
2.4.4 Colour patch features 3
2.4.5 MTF measurement features 4
2.4.6 Additional ISO 19264 target features/reference data 4
2.5 Additional targets 4
2.6 Linear grayscale 5
2.6.1 DCSG colour chart 5
2.6.2 Limitations of Chart Based Imaging System Analysis 5

3 Image quality levels 6

4 Basic principles of image capture and processing 6
4.1 Overview 6
4.2 Scene referred and output referred image states 7
4.3 User controls and readouts 7
4.3.1 General 7
4.3.2 Colour Processing Controls 7
4.3.3 Exposure readouts 8
4.3.4 Raw processor readouts and controls 8
4.3.5 Other user controls 8
4.3.6 Unwanted data modification 8
4.4 Master images and derivatives 8
4.4.1 General 8
4.4.2 Raw image files 8
4.4.3 Artwork reproduction cycle 9

5 Imaging system setup and calibration 10
5.1 General 10
5.2 Position camera system 10
5.3 Establish uniformity-even illumination 10
5.3.1 General 10
5.3.2 Optional flat-fielding 10
5.4 Establish exposure 11
5.5 Establish tone reproduction curve (OECF) 11
5.6 Create an ICC colour profile 11
5.7 Analyse colour and tone 12

6 Application of image quality analysis 12

6.1 Selection of imaging systems: preflighting equipment or vendors 12
6.2 Using ISO 19264 target: Initial system configuration 13
6.3 Using ISO 19264 target: System performance evaluation (benchmarking) 13
6.4 Using ISO 19264 target: Ongoing performance monitoring 13

7 Technical metadata for image quality analysis 14

Annex A (informative) Linear Grayscale L* to RGB conversion table 15

Annex B (informative) Subjective interpretive imaging (aesthetics) 16

Bibliography 19