

2D Digitization of Cultural Heritage Objects

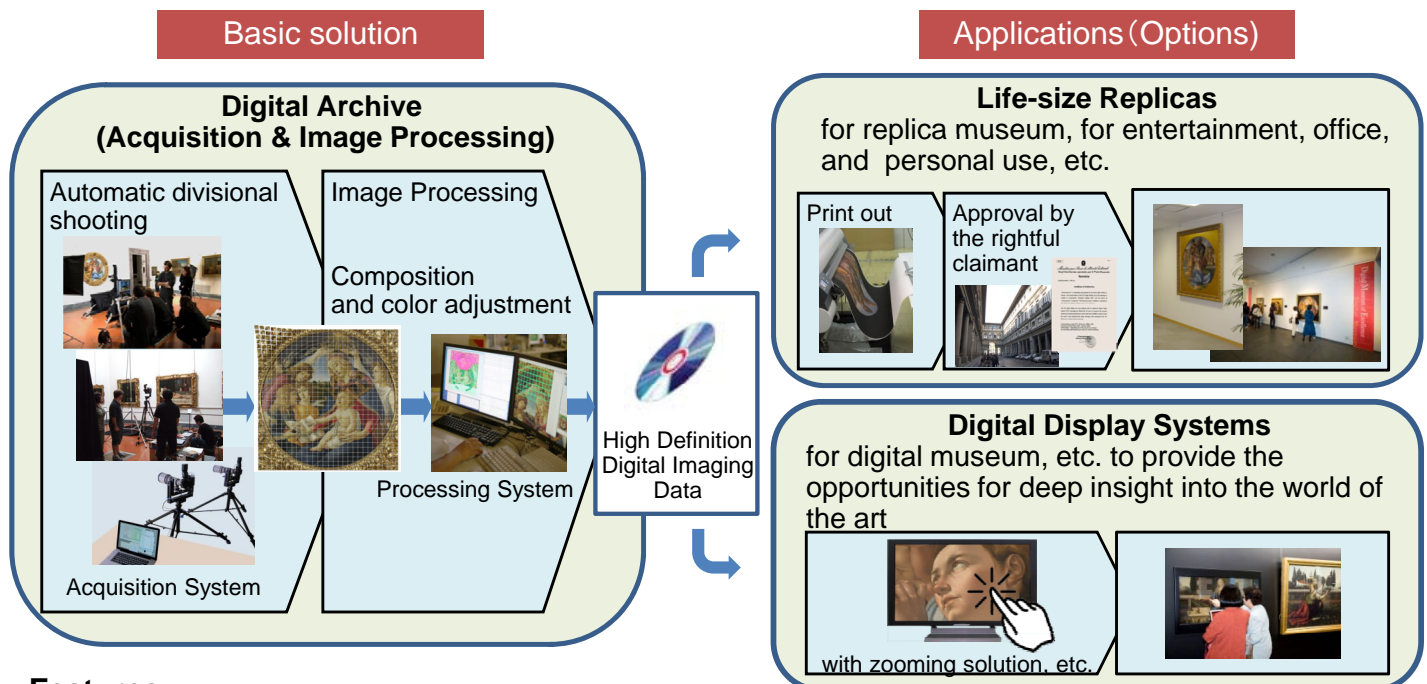
- High resolution digitization of cultural heritage objects for their preservation or restoration with minimal damage to the originals (Useful for large paintings or quick digitization)
- Creation of high definition replicas
- Display of digital images (e.g. digital museum)

Digital Imaging Systems (Technology)

Digital Imaging Systems (or "DIS") is a **total digitization solution** suitable for valuable and irreplaceable cultural heritage objects. It conducts all processes from input (digital acquisition) to output in digital form. We have proactively conducted pioneering projects such as the "Digital Archive Museum of Excellence" Project, including a high-quality digital reproduction of "Annunciation" by Leonardo da Vinci, collaborating with Board of National Museums in Florence (SSPSAE e per il Polo museale della Città di Firenze), The Uffizi Gallery, MICC (University of Florence), and our Italian partner, as introduced overleaf.

In our recent R&D built on our experience and expertise, we have achieved **digitization with resolutions of 1200 ppi** (pixels per inch) or more for **large size paintings**. As a result, DIS has become a more suitable solution for **high definition digitization** including large size paintings and the creation of extremely high-quality **life-size replicas**, which are important elements of a digital museum.

Digital Imaging Systems (Process)



Features

- Digitization with resolutions of **1200 ppi** (pixels per inch) or more (subject to shooting conditions)
- Automatic acquisition** to minimize human resources and cost of digitization
- High accuracy and high efficiency of image processing** by proprietary software (**Patent Pending**)

Please contact:

Global Account Sales Division1, Global Business Planning & Operations Division,
Information & Telecommunication Systems Company, Hitachi, Ltd.
email:sayuri.yuki.xy@hitachi.com

Issued by:

Digital Image System Project, Global Business Planning & Operations Division,
Information & Telecommunication Systems Company, Hitachi, Ltd.

Sample Applications of Digital Imaging Systems

“The Mind of Leonardo”, Exhibition at Tokyo National Museum

Exhibition of high quality replicas of the art works of Leonardo da Vinci



Acquisition at The Uffizi Gallery



March 20 – June 17, 2007
Total number of visitors:
796,004 (in 79 days)
DIS Replica (life size),
from left: "Annunciation",
"Adoration of Magi" and
"Baptism of Christ"



The replica yields "super" quality



Replica shop in the exhibition



Tokyo National Museum

In collaboration with SSPSAE e per il Polo museale della Città di Firenze, The Uffizi Gallery, MICC (University of Florence), Centrica srl., Tokyo National Museum, The Asahi Shinbun, NHK

“Digital Archive Museum of Excellence” Project

In collaboration with Board of National Museums in Florence (SSPSAE e per il Polo museale della Città di Firenze), The Uffizi Gallery, MICC (University of Florence), Centrica srl.

Board of National Museums in Florence (SSPSAE e per il Polo museale della Città di Firenze), which administers all the art works of galleries and museums in Florence, Italy, has been promoting the digitization of its cultural heritage objects and started the **“Digital Archive Museum of Excellence” Project in 2008 with Hitachi, Ltd.** and our Italian partners. In the Project, a total of 26 selected paintings will be digitized, with the aim of increasing the added value of Florentine galleries and museums. **DIS technology and solutions** have been applied to this project.

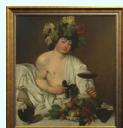
Life size replicas by DIS



L' Annunciazione
Leonard da Vinci



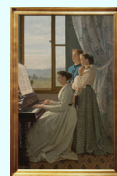
Venere d' Urbino
Tiziano



Bacco
Caravaggio



Madonna
del Cardellino
Raffaello



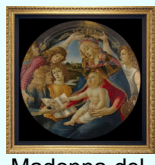
Il canto dello
stornello
Lega



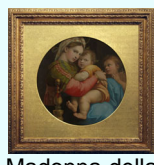
Acquisition at The Uffizi Gallery



Tondo Doni
Michelangelo



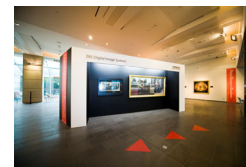
Madonna del
Magnificat
Botticelli



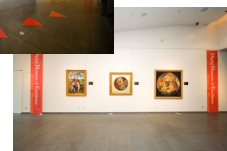
Madonna della
seggiola
Raffaello



Dittico di Urbino
Piero della
Francesca

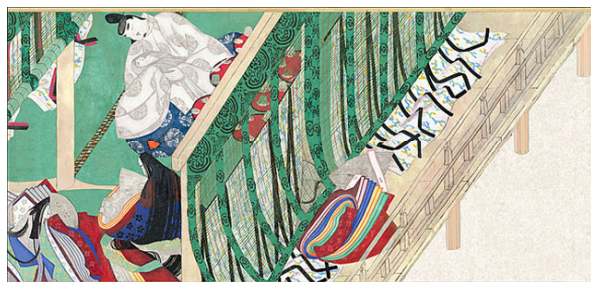


Digital Museum
of Excellence



Restoration and archiving of the "Picture Scroll of the Tale of Genji", a Japanese national treasure

Digital print with original colors: Digital archiving of all collections



Result of digital restoration



Original painting



Digital reproduction with high-quality
digital print & traditional bindings

In collaboration with the Tokugawa Art Museum & the Goto Museum

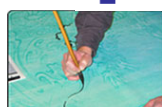
Restoration of the lost dragon ceiling painting at Togakushi Shrine

Large painting lost in fire is restored from a small postcard



Postcard
(9x14cm)

Enlargement
(X1,000)



Restoration by painter



Restored painting 3.6 by 3.6 meters

In collaboration with the Togakushi Shrine, Kawanabe Kyosai Memorial Museum