Digitization Standards & Protocols

The materials in the Volcano Art Center's Heritage and Archives collection vary in captured mediums. This is a natural result of decades of different technologies that became available to consumers and institutions. This document has been created to better assist anyone who wishes to better understand how the VAC digests, accepts and delivers various archivable content.

This document also illustrates the VAC's metadata standards to ensure that descriptive and technical characteristics are noted in for the purposes of our collection management system.

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Imagery (Excluding Paintings And Original Works Larger Than 15"x15")
These specifications must be followed when digitizing materials such as photographs, negatives, documents, manuscripts, diaries, books and other similar visual content.

Resolution
35mm Film: 3200 DPI Minimum Optical Scan
120/220 And Other Medium Format Film: 6400 DPI Minimum Scan
4x5, 8x10 And Larger Film: 6400 Minimum Scan
Photos Printed Or Developed On Paper (Any Size): 1440 DPI Minimum Optical Scan
Newspapers, Magazine Excerpts, Collages (Any Size): 1000 DPI Minimum Optical Scan
Paintings, Sketches, Original 2D Pieces: (Any Size): 4000 DPI Minimum Optical Scan

Digital File Format
Tagged Image File Format (TIFF)
For scanned color images, a 24 bit RGB setting must be used.
For black and white images, a 24 bit RGB setting must be used.

File Compression
LZW, JPEG (90% or Higher Value) or None

Metadata
Embedded fields are to follow the International Press Telecommunications Council (IPTC) Core standard. This is accessible through most imaging programs.

Mandatory embedded data for imagery must include:
Document Title
Copyright Notice
Scan/Capture Date
Source (camera, scanner, filmstock name ect.)
Creator, Author, Painter, Photographer, Videographer, Studio, Publisher ect.

Note(s):
(a) Cameras that capture imagery in their original native RAW file format are also acceptable. This can also be used for digitizing purposes.

(b) Museums, Archives, and other "well known" agencies and similar institutions that have digitization standards and protocols may submit and exchange existing digital assets to the Volcano Art Center.

Objects And Artifacts
The above camera specifications are to be used and applied to objects, artifacts and other three-dimensional objects (see Note(s) (a).

Literature, Text Documents, Bound materials, Fragile/Non-Fragile And Loose Leaf Items
Literature and text documents are variable in format, because of that issue; the VAC has three types of protocols to securely archive literature and text documents. These protocols can retain images that might be embedded in literature and text documents.

Capture Procedures
>**Digitized Contents:** Covers, inner boards, outer boards and inside pages are typically imaged as verso and recto single-pages.
>**Blank Pages:** All blank pages are imaged.
>**Foldouts:** Foldouts are imaged in sequence whenever possible. Out-of-sequence foldout images are integrated in the delivery sequence of the rest of the bound volume's image files. When foldouts contain information on one side only, images of foldouts capture contents in their folded state while images of the reverse side capture contents in their unfolded state.

>**Incomplete Or Damaged Literature/Documents:**
>Tragically, some books and unique documents have been discovered with severe damage or missing pages. For this reason we ask that these pages are captured via **"Protocol #1"** in 24 bit color.

Protocol #1: Image Capture

>**Resolution**
>Any size: 1440 DPI Minimum Optical Scan

>**Digital File Format**
>Tagged Image File Format (TIFF)
>For scanned color images, a 24 bit RGB setting must be used.
>For black and white images, a 24 bit RGB setting must be used.

>**File Compression**
>LZW, JPEG (90% or Higher Value) or None

>**Metadata**
>Embedded fields are to follow the International Press Telecommunications Council (IPTC) Core standard. This is accessible through most imaging programs.

>>Mandatory embedded data for imagery must include:
>>Document Title
>>Copyright Notice
>>Scan/Capture Date
>>Source (camera, scanner, filmstock name ect.)
>>Creator, Photographer, Videographer, Studio ect.

Protocol #2: Plain Text Formats

Resolution
Any size up to 8x10: 1000 DPI Minimum Optical Scan
8x10 and larger: 1440 DPI Minimum Optical Scan

Digital File Format
Tagged Image File Format (TIFF)
For scanned color images, a 24 bit RGB setting must be used.
For black and white images, a 24 bit RGB setting must be used.

File Compression
LZW, JPEG (90% or Higher Value) or None

Metadata
Embedded fields are to follow the International Press Telecommunications Council
(IPTC) Core standard. This is accessible through most imaging programs.

Mandatory embedded data for imagery must include:
Document Title
Copyright Notice
Scan/Capture Date
Source (camera, scanner, filmstock name ect.)
Creator, Photographer, Videographer, Studio, Publisher, ect.

Paintings And Original Works Larger Than 15"x15"
Capturing imagery of original works like paintings and other similar materials, typically requires specialty equipment, training, and experience. Because of this there are very few resources in Hawaii that provide this service. VAC requires paintings and other similar works that are located in the State of Hawaii to be scanned by our preferred partner, Hilo Fine Art Center.

Capture Procedures
> **Resolution**
> 360 PPI minimum
>
>
> **Digital File Format**
> RAW Capture, TIFF
> 16 bit, 24 bit or 48 bit RGB
>
> **File Compression**
> None
>
> **Metadata**
> Embedded fields are to follow the International Press Telecommunications Council (IPTC) Core standard. This is accessible through most imaging programs.
>
>> Mandatory embedded data for imagery must include:
>> Document Title
>> Copyright Notice
>> Scan/Capture Date
>> Source (camera, scanner, filmstock name ect.)
>> Creator, Author, Painter, Photographer, Videographer, Studio, Publisher ect.

Questions
> Hawaiian Standard Time
> Contact Name: Robbyn Peck
> Main Line: +1 (808) 966-9995
>
> Location:
> Hilo Fine Art Center
> 16-643 Kipimana St., Ste. 14
> Keaau, HI 96749

Analog Video Media Digitization
Analog video sources include U-Matic, Hi8, VHS, 8mm, 16mm, 35mm, 65mm, 75mm, Betamax, BetaCam, NTSC TV, PAL TV, 1"Reel-Reel and other similar formats.

Prior to digitizing any analog video source please make note if there is no audio accompanying the video track.

Audio accompanying any video tracks should be embedded with the video and to AC-2, AC-3, AIFF, DTS-HD and recorded at 24bit audio specs (see audio page 8). Please not how many channels of audio accompany the video source.

Film Formats
Conversion of all film formats (celluloid, nitrate or similar) need to be delivered in a 4444 color space and delivered in the digital file format of Apple ProRes 4444 or Cinema DNG. Please include all capture and sync information, this includes but is not limited to reel and take information.

If any audio accompanying the film exists, please deliver it as a separate file meeting our 24bit audio specs (see audio page 8).

The VAC does not accept any motion picture reels, home video reels or similar. Please have you content digitized in advance of delivery to VAC. If the filmed content you wish to submit to the VAC is of a unique or peculiar nature the VAC might be able to find funding for the digitization process. This inquiry can be emailed to archive@volcanoartcenter.org

Digital File Formating
Digital video sources should be delivered to VAC by means of a MPEG-2 in a 4:2:2 format, H.264, H.265 or HVEC in a MOV wrapper.

VAC prefers all video sources to be delivered in Apple ProRes 422 HQ or higher. Analog video sources (excluding film formats) can be recorded and delivered in Apple ProRes 422 Proxy or higher.

Metadata
Currently, we do not accept embedded metadata into video files. However, a XML file containing descriptive and technical metadata is requited.

Technical Notes On All Imagery
(a) Cameras that capture imagery in their original native RAW file format are also acceptable. This can also be used for digitizing purposes.

(b) Museums, Archives, and other "well known" agencies and similar institutions that have digitization standards and protocols may submit and exchange existing digital assets to the Volcano Art Center.

(c) "Digital Image Correction and Enhancement," more commonly known as "Digital ICE"; is a set of technologies related to producing an altered image in a variety of frequency spectra. The VAC does not endorse the use of ICE technologies. ICE is most commonly listed in products like scanners. ICE can detect dust, scratches, tears and other similar defects in scanned content. ICE does not correct or fix the problems detected in an image without degrading the source image. Although ICE is helpful for everyday consumers, it is not utilized by the archival community.

If Digital ICE was used in the process of scanning or capturing your source images, please let the VAC know upon submitting your content.

Questions
If you have any further questions about technical specifications please email archive@volcanoartcenter.org

Analog Audio Digitization
Upon acquisition or prior to playback, ensure that any record tabs and buttons have been removed or depressed to avoid accidentally recording over the content present.

Digital File Formats
Acceptable audio file formats include FLAC, AIFF, ALAC and Broadcast Wave File (BWF). All files are to be recorded at or translated into 24-bit 96 kHz

Many audible projects in the past three decades were recorded with content being delivered on CDs. Most CDs have 16-bit source audio. CDs must be ripped/imported using software that enables audio files to be recorded as uncompressed files – ie a straight copy of the data on the disc. Uncompressed files must meet the digital file formats above.
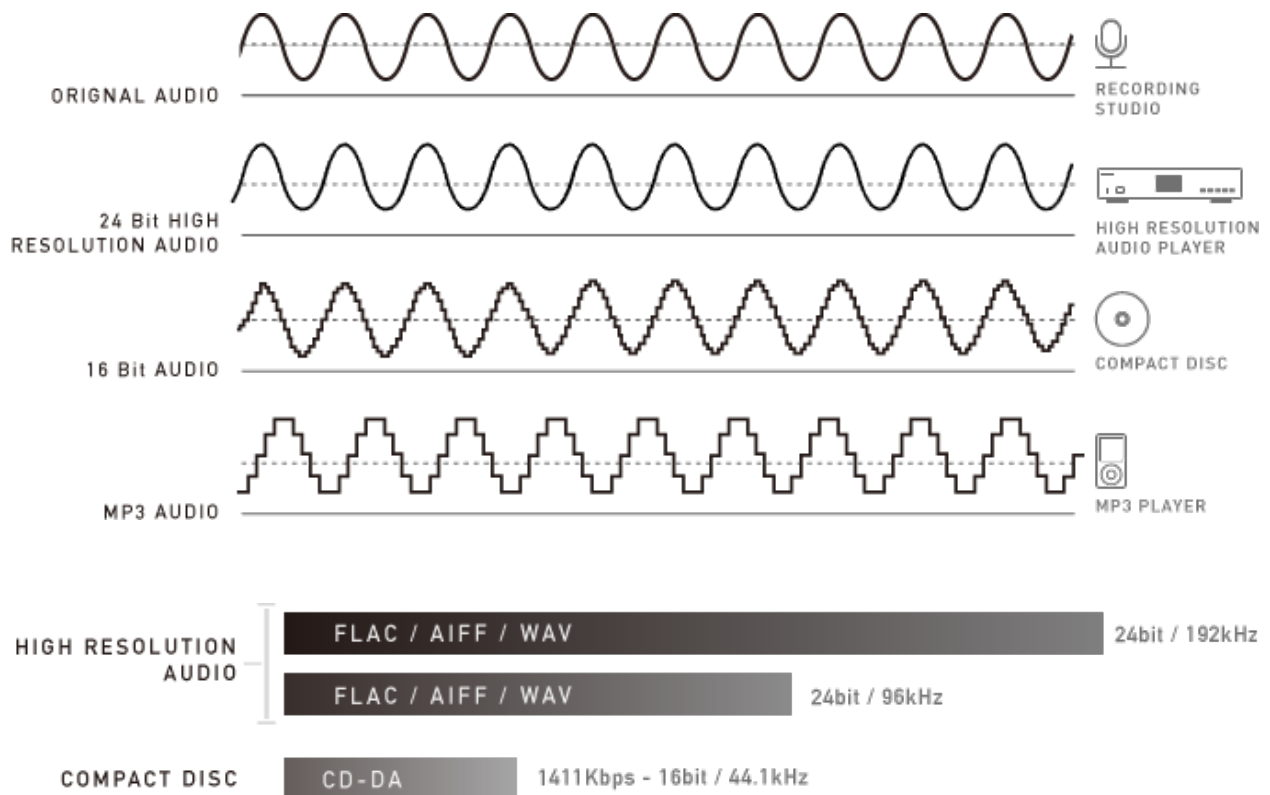
Metadata
Mandatory embedded data for imagery must include:
Song Title, Music Title or General Title
General Description
Copyright Notice
Scan/Capture Date
Release Year

Submission Details

The Volcano Art Center's Heritage and Archival Program receives submitted content by email and mail.

Digital Content

Already digitized content can be sent online to the VAC by using WeTransfer.com (A free service) and by sending it to: archive@volcanoartcenter.org

If your digital content is to large for WeTransfer or your internet is slow, you can send it via a USB thumb-drive, SD card, CF card or a CFAST card.

Volcano Art Center's HAP Mailing Address:

Volcano Art Center - HAP
P.O. Box 129
Volcano, HI
96785
USA

Analog Content

The VAC does not accept any analog or hardcopy content without prior approval from the VAC's Heritage and Archival Program committee. An analog content submission application must be filled out for the committee to approve prior to mailing it.

The HAP committee can ask the public for content submission at it's discretion. On these occasions the HAP committee states what type content they are looking for; and by a chosen subject. The committee also implements submission periods/deadlines.

The VAC does not accept paintings or other original artworks unless otherwise stated.

The VAC's Heritage and Archival Program does not develop any film materials.

The VAC's Heritage and Archival Program does not archive physical content. The VAC's Heritage and Archival Program is exclusively a digital program and does not store/archive any content.

Digitizing Your Content

Our digitizing protocols are of the highest standards. We have these standards in place to ensure that they are usable and readable in all future computer systems and websites.

The VAC will digitize solicited content authorized the HAP Committee. If you wish to submit unsolicited digitized content it must be to this documents specifications.

If you do not wish to digitize your content/materials yourself; you can hire someone to do it for you.

VAC Endorsed Scanning And Digitizing Services

Table Scanning services for paintings and original 2D artwork up to 40"x60"

Hilo Fine Art Center
Contact Name: Robbyn Peck
Main Line: +1 (808) 966-9995
Email: gallery@hilofineart.com
Website: www.hilofineart.com/scanning-services/

Location:
Big Island of Hawaii
16-643 Kipimana St., Ste. 14
Keaau, HI 96749

Scanning of 35mm slides, 35mm film, medium format film sources, large format film sources and paper formats up to A4 in size.

Toxikc Colour Visuals
Contact Name: Jesse Tunison
Main Line: +1 (808) 640-5366 (Noon-5pm)
Email: toxikccolour@me.com
Website: www.toxikccolour.com

CALL FOR PRICING

Mailing Address:
P.O. Box 754
Volcano, Hawaii
96785
USA

VAC Release Forms And Permissions

When the Volcano Art Center's Heritage and Archival Program receives your digital content, we will send you a "Content Release Form." You can also download this form through our submission content page, **www.volcanoartcenter.com/submission**.

Once you print and sign the form, you can take a photo of the form and and email it to *archive@volcanoartcenter.org*. If you wish to mail your signed form to The Volcano Art Center directly, you can by mailing it to:

Volcano Art Center - HAP
P.O. Box 129
Volcano, HI
96785
USA

If you live in the Volcano Area or wish to drop the form off in person, you may do so by dropping off the signed form at The Volcano Art Centers Niaulani Campus Front Desk.

Volcano Art Center
19-4074 Old Volcano Rd,
Volcano, HI
96785
USA

About The Content Release Form
The "Content Release Form" allows the Volcano Art Center to use your images, video and audio for publications, printing, educational content, web publishing and licensing your content in a perpetual manner.

All copyright will belong to the the artist who originally created the content unless the content belongs to heirs, successors or estates; if that is the case then the copyright will belong to it and will be stated in submission of content.

All funds raised through the Volcano Art Center's Heritage and Archival Program are to be used in maintaining the public accessibility to view the content of the digital archive and VAC's administration costs that enable the VAC to fulfill it's mission statement.

FAQs About The Content Release Form

Q: Will I still own the content I submit?
A: Yes, but the Volcano Art Center will be granted through the form to exclusively manage the publishing rights to the image and holds the right to make profits from it.

Q: If the VAC digitizes my content can I get the digital copies of it?
A: Yes.

Volcano Art Center's
Heritage And Archival Program
A Collection Of Digital Assets