



# Metadata Fields for Describing Computer and Software Components

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Created by Time-based Media Conservation, Tate

## Document Outline

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This document describes the metadata fields developed by Tate's Time-based Media Conservation Team during the Software-based Art Preservation Project, in order to standardise the description of computer and software components in the Tate's collection management system, The Museum System (TMS). They are divided into two sections. Controlled vocabulary fields are those which use structured hierarchies of terms to present a set of options to choose from. These are sets of terms which are expected to be relatively infrequently extended. Free text fields are those for which a user can enter custom text. These are expected to be highly variable and as such would be impractical to maintain as a controlled vocabulary list.

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# 1 Controlled Vocabulary Fields

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## 1.1 Computer Form Factors

- Desktop
  - Tower
  - Workstation
  - All-In-One
  - Small Form Factor
- Laptop
- Embedded
  - Microcontroller
  - Single-Board
- Mobile
  - Smartphone
  - Tablet
- Rack Unit

## 1.2 Software Architectures

- 68k
- ARM
- i386
- PowerPC
- x86-64

## 1.3 Operating Systems

- Windows
  - Windows 95
    - 4.00.950
    - 4.00.950 A (OEM Service Release 1)
    - 4.00.950 B (OEM Service Release 2)
    - 4.00.950 B (OEM Service Release 2.1)
    - 4.00.950 C (OEM Service Release 2.5)
  - Windows 98
    - 4.10.1998
    - 4.10.2222 (Second Edition)
  - Windows Me
    - 4.90.3000
  - Windows 2000
    - 5.00.2195
  - Windows XP
    - 5.1.2600
    - 5.1.2600.1106 (Service Pack 1)
    - 5.1.2600.2180 (Service Pack 2)



- 5.1.2600.5512 (Service Pack 3)
  - 5.2.3790 (x64 Edition)
  - Windows Vista
    - 6.0.6000
    - 6.0.6001 (Service Pack 1)
    - 6.0.6002 (Service Pack 2)
  - Windows 7
    - 6.1.7600
    - 6.1.7601 (Service Pack 1)
  - Windows 8
    - 6.2.9200
  - Windows 8.1
    - 6.3.9600
    - 6.3.9600 (Update 1)
  - Windows 10
    - 10.0.10240 (1507)
    - 10.0.10586 (1511 - November Update)
    - 10.0.14393 (1607 - Anniversary Update)
    - 10.0.15063 (1703 - Creators Update)
    - 10.0.16299 (1709 - Fall Creators Update)
    - 10.0.17134 (1803 - April 2018 Update)
    - 10.0.17763 (1809 - October 2018 Update)
    - 10.0.18362 (1903 - May 2019 Update)
    - 10.0.18363 (1909 - November 2019 Update)
- Mac OS
  - Mac OS 8
    - 8.0
    - 8.1
    - 8.5
    - 8.5.1
    - 8.6
  - Mac OS 9
    - 9.0
    - 9.0.2
    - 9.0.3
    - 9.0.4
    - 9.1
    - 9.2
    - 9.2.1
    - 9.2.2
  - Mac OS X 10.0 (Cheetah)
    - 10.0
    - 10.0.1
    - 10.0.2
    - 10.0.3
    - 10.0.4
  - Mac OS X 10.1 (Puma)
    - 10.1
    - 10.1.1
    - 10.1.2



- 10.1.3
- 10.1.4
- 10.1.5
- Mac OS X 10.2 (Jaguar)
  - 10.2
  - 10.2.1
  - 10.2.2
  - 10.2.3
  - 10.2.4
  - 10.2.5
  - 10.2.6
  - 10.2.7
  - 10.2.8
- Mac OS X 10.3 (Panther)
  - 10.3
  - 10.3.1
  - 10.3.2
  - 10.3.3
  - 10.3.4
  - 10.3.5
  - 10.3.6
  - 10.3.7
  - 10.3.8
  - 10.3.9
- Mac OS X 10.4 (Tiger)
  - 10.4
  - 10.4.1
  - 10.4.2
  - 10.4.3
  - 10.4.4
  - 10.4.5
  - 10.4.6
  - 10.4.7
  - 10.4.8
  - 10.4.9
  - 10.4.10
  - 10.4.11
- Mac OS X 10.5 (Leopard)
  - 10.5
  - 10.5.1
  - 10.5.2
  - 10.5.3
  - 10.5.4
  - 10.5.5
  - 10.5.6
  - 10.5.7
  - 10.5.8
- Mac OS X 10.6 (Snow Leopard)
  - 10.6
  - 10.6.1



- 10.6.2
- 10.6.3
- 10.6.4
- 10.6.5
- 10.6.6
- 10.6.7
- 10.6.8
- Mac OS X 10.7 (Lion)
  - 10.7
  - 10.7.1
  - 10.7.2
  - 10.7.3
  - 10.7.4
  - 10.7.5
- Mac OS X 10.8 (Mountain Lion)
  - 10.8
  - 10.8.1
  - 10.8.2
  - 10.8.3
  - 10.8.4
  - 10.8.5
- Mac OS X 10.9 (Mavericks)
  - 10.9
  - 10.9.1
  - 10.9.2
  - 10.9.3
  - 10.9.4
  - 10.9.5
- Mac OS X 10.10 (Yosemite)
  - 10.10
  - 10.10.1
  - 10.10.2
  - 10.10.3
  - 10.10.4
  - 10.10.5
- Mac OS X 10.11 (El Capitan)
  - 10.11
  - 10.11.1
  - 10.11.2
  - 10.11.3
  - 10.11.4
  - 10.11.5
  - 10.11.6
- macOS 10.12 (Sierra)
  - 10.12
  - 10.12.1
  - 10.12.2
  - 10.12.3
  - 10.12.4
  - 10.12.5



- 10.12.6
  - macOS 10.13 (High Sierra)
    - 10.13
    - 10.13.1
    - 10.13.2
    - 10.13.3
    - 10.13.4
    - 10.13.5
    - 10.13.6
  - macOS 10.14 (Mojave)
    - 10.14
    - 10.14.1
    - 10.14.2
    - 10.14.3
    - 10.14.4
    - 10.14.5
    - 10.14.6
  - macOS 10.15 (Catalina)
    - 10.15
    - 10.15.1
- Linux
  - Ubuntu
    - Ubuntu 4.10 (Warty Warthog)
    - Ubuntu 5.04 (Hoary Hedgehog)
    - Ubuntu 5.10 (Breezy Badger)
    - Ubuntu 6.06 LTS (Dapper Drake)
    - Ubuntu 6.10 (Edgy Eft)
    - Ubuntu 7.04 (Feisty Fawn)
    - Ubuntu 7.10 (Gutsy Gibbon)
    - Ubuntu 8.04 LTS (Hardy Heron)
    - Ubuntu 8.10 (Intrepid Ibex)
    - Ubuntu 9.04 (Jaunty Jackalope)
    - Ubuntu 9.10 (Karmic Koala)
    - Ubuntu 10.04 LTS (Lucid Lynx)
    - Ubuntu 10.10 (Maverick Meerkat)
    - Ubuntu 11.04 (Natty Narwhal)
    - Ubuntu 11.10 (Oneiric Ocelot)
    - Ubuntu 12.04 LTS (Precise Pangolin)
    - Ubuntu 12.10 (Quantal Quetzal)
    - Ubuntu 13.04 (Raring Ringtail)
    - Ubuntu 13.10 (Saucy Salamander)
    - Ubuntu 14.04 LTS (Trusty Tahr)
    - Ubuntu 14.10 (Utopic Unicorn)
    - Ubuntu 15.04 (Vivid Vervet)
    - Ubuntu 15.10 (Wily Werewolf)
    - Ubuntu 16.04 LTS (Xenial Xerus)
    - Ubuntu 16.10 (Yakkety Yak)
    - Ubuntu 17.04 (Zesty Zapus)
    - Ubuntu 17.10 (Artful Aardvark)
    - Ubuntu 18.04 LTS (Bionic Beaver)



- Ubuntu 18.10 (Cosmic Cuttlefish)
- Ubuntu 19.04 (Disco Dingo)
- Ubuntu 19.10 (Eoan Ermine)
- Ubuntu 20.04 LTS (Focal Fossa)

#### **1.4 Partition Tables**

- APM
- GPT
- MBR

#### **1.5 Boot Types**

- BIOS
- UEFI

#### **1.6 Filesystems**

- APFS
- exFAT
- ext2
- ext3
- ext4
- FAT12
- FAT16
- FAT32
- HFS
- HFS+
- ISO 9660
  - Apple ISO 9660 Extensions
  - El Torito
  - Joliet
  - Rock Ridge
- NTFS
- UDF
- UFS

#### **1.7 File Formats**

- .exe file
- .jar file
- .app file
- .raw file (disk image)
- .bin file (disk image)
- .dmg file



- .vdi file
- .vhd file
- .ovf file
- .ova file
- .qcow2 file

## 1.8 Software Program Types

- Software (Operating System)
- Software (Application)
- Software (Library)
- Software (Driver)

## 2 Free Text Fields

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### 2.1 Computer Hardware

- hardware: CPU
- hardware: RAM
- hardware: storage device
- hardware: GPU
- hardware: PSU
- hardware: motherboard
- hardware: interface
- hardware: other

### 2.2 Software Environments

- software environment: operating system
- software environment: installed software
- software environment: external dependency

### 2.3 Software Programs

- software: version
- software: developer
- software: dependency