

DIGITAL ARCHIVING: GLOSSARY

GLOSSARY

BIM	Building Information Model. A 3D CAD model that contains embedded information on materials, cost estimation and scheduling.
Bit rot	Slow and inevitable degradation of a bit stream over time.
Bit stream	A sequence of bits that stores digital information.
Bit	The basic unit of digital information. A bit can have one of only two possible values (on/off), most commonly represented as 0 or 1.
CAD	Computer Aided Design. Software used by designers to create precision 2D technical drawings and 3D models.
Catastrophic failure	A sudden and total failure from which recovery is impossible.
CD	Compact Disk. An optical physical carrying media.
Checksum	A short sequence of characters that acts as a fingerprint of a digital file. A checksum is generated by passing the bit stream of a digital file through an algorithm. A checksum may be used to validate the fixity of a bit stream.
Cloud computing	The delivery of hosted services over the internet.
Compression	A means of reducing the size of a digital file; see also <i>lossy compression</i> and <i>lossless compression</i> .
Corruption	An unintended change in the bit stream of a digital file.
Dark storage	Digital information stored on physical carrying media that is not connected to a computer network.
Digital preservation	A set of policies, strategies and actions that ensure digital information remains accessible over time.
Digitisation	The process of converting analogue media into digital information. Compare with <i>digital preservation</i> .
Directory	The structure of a computer filing system; a hierarchy of files and folders.
Disk imaging	The process of creating an identical copy of the data stored on a unit of physical carrying media, including empty space and deleted files.
DVD	Digital Versatile Disk. An optical physical carrying media.
Emulation	Using one computer system to imitate the functions of another.
Fixity	(Of a bit stream) the state of being unchanging or permanent.
Flash memory	Digital information stored on a computer chip that can be electrically erased and reprogrammed.
Hard disk drive	A physical carrying media technology in which large quantities of digital data is stored on a rapidly rotating magnetic platter.
Hardware lock	A physical device that renders software inoperable when not physically connected to the computer.
Hardware	The physical components of a computer, in contrast to software, which are programs or instructions that can be run by hardware.
IGES	Initial Graphics Exchange Specification. An open file format for storing and/or sharing CAD data.
Ingest	The process of absorbing content into an archive.
Installation files	Files that allow the installation of a piece of software on a computer system.
IT	Information Technology



 ARCHITECTURE
MUSEUM
Digital archiving

Digital archiving is the process of collecting records in a digital environment. Records may include drawing documentation, specifications, reports, email correspondence and photographs, and may be stored in a range of file types.

Training and professional development

NATSPEC provides a training module on archiving digital architectural records. Resources and further reading are available in the *Archiving digital architectural records: towards a national framework project* report, hosted on the NATSPEC website.

Relevant websites

Architecture Museum,
University of South Australia
www.unisa.edu.au

National BIM Guide, NATSPEC
bim.natspec.org

Archiving, Acumen Practice
Notes
acumen.architecture.com.au

NATSPEC TECHnotes

GEN 030 Digital archiving: Introduction
GEN 032 Digital archiving: File naming and project folder structure

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JPEG	Joint Photographic Experts Group. A file format for storing raster graphics images.
Legacy	(Of a technology) no longer in current or regular use.
Lossless	(Of copying) without loss of information.
Lossy compression	A kind of <i>compression</i> . When applying lossy compression, some data is discarded, files are permanently altered and may not be uncompressed. For example, <i>JPEG</i> compression is a lossy compression format for image files. Compare with <i>lossless compression</i> .
Lossless compression	A kind of <i>compression</i> . No information is discarded in lossless compression, and compressed files may be uncompressed, returning them to their original state. For example, <i>TIFF</i> is a lossless compression format for image files. Compare with <i>lossy compression</i> .
Metadata	Data about data; data attached to files stored on a computer system, for e.g. author, date modified, date created.
Native format	The format that a piece of software uses by default.
OBJ	An open file format for storing 3D models.
Open format	A file format that is not protected by proprietary patents or other intellectual property restrictions.
Optical media	Optical physical carrying media, in which digital data is stored as markings on disk. The disk is read by a laser while spinning at a high speed.
PDF-A	Portable Document Format Archival. An open file format for the long-term storage of document content, including text and images.
Physical carrying media	The physical media that are used to store information, for example, hard disk drives, magnetic tape or disks, flash media, optical disk (for example CD/DVD .recordable) etc.
Proprietary format	A file format that is protected by patents or other intellectual property restrictions.
Raster graphics	Digital images made up of a rectangular grid of pixels. Compare with <i>vector graphics</i> .
Server	An array of hard disk or solid-state drives accessed via a local computer network.
Software	Programs or instructions that tell a computer how to work, in contrast to physical hardware that performs work.
Solid-state drive	A physical carrying media technology in which large quantities of digital data is stored using flash memory.
STEP	Standard for the Exchange of Product Model Data. An open file format for storing CAD data.
SVG	Scalable Vector Graphics. An open file format for storing vector graphics images.
TIFF	Tagged Image File Format. An open file format for storing raster graphics images.
Validate	To check the fixity of digital files using checksums.
Vector graphics	Digital images composed of paths or vectors. Compare with <i>raster graphics</i> .