

# Technical and Domain Glossary

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2	2001-07-26	inserting terms from the available VIZARD documents use cases and system-architecture – send to all partners and used for internal review.
3	2001-08-20	changing after review – send to EC for 1 <sup>st</sup> reviewing

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# 1 Technical and Domain Glossary

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In the glossary we will collect all domain specific terms and definition which are used in VIZARD. For each entity a definition will be given. If a term is used in different meanings we will provide domain specific definitions and references to specific domains. We will collect references and abstracts to scientific publications.

The glossary will be an internal document but we also intend to put this Glossary on our Public project Webpage <http://www.video-wizard.com/glossary.htm>.

## 1.1 Glossary in Alphabetical Order

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[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

### A

<b>Adaptive User Interface</b>	The mechanisms by which the user interface of the video editing and annotation tools adapts to selected visualization methods and video lenses composition configuration.
<b>ALE</b>	ALE-Avid Log Exchange
<b>AMMA</b>	Austrian Multimedia Association, see <a href="http://www.amma.at/">http://www.amma.at/</a>
<b>Annotation</b>	Structured text and/or graphical entity attached to a segment or a cue in order to be able to search and find it in future tasks. Such an Annotation is associated with a Video Object.
<b>Annotation Element</b>	Annotation Element is a Video Book Element, which is used to insert additional information (see Annotation) related to the visualized audio/video stream.
<b>Annotation Wizard</b>	VIZARD application for video annotation.
<b>API</b>	Application Program Interface
<b>Asset</b>	Combination of Content and IPR related information's.
<b>Audio/Video</b>	See, for example, <a href="http://www.bavc.org/html/resources/glossary.html">http://www.bavc.org/html/resources/glossary.html</a> or <a href="http://www.soundsite.com/glossary">http://www.soundsite.com/glossary</a>
<b>Audio/video stream</b>	see Media stream
<b>AVI</b>	AVI stands for Audio Video Interleaved. AVI format files are common under Microsoft Windows for storing audio and video files. AVI is actually a "wrapper" around a particular video format, so an AVI file can contain video and audio of many different formats.

## B

## C

<b>Capture</b>	Capturing denotes the process of grabbing moving pictures and sound under hard real-time conditions (linear processing). This applies to (a) tape recordings using camcorders or (b) incoming media streams through appropriate interfaces.
<b>CeBIT</b>	The world's largest exhibition of the information and telecommunication industry. Takes place once a year in March in Hannover, Germany.
<b>CET</b>	Compressed Domain Video Editing. In Compressed Domain Video Editing (CET) image manipulations are directly applied to the compressed data (in contrast to the decode-edit-encode approach).
<b>Clipboard</b>	See Video Publisher Buffer
<b>CoDec</b>	A codec is the algorithm (code) used to compress a video for delivery and then decode it in real-time for fast playback, see <a href="http://www.icanstream.tv/CodecCentral/index.html">http://www.icanstream.tv/CodecCentral/index.html</a> .
<b>Collection</b>	Collection is a set of documents which has been gathered, described and structured by librarians or archivists according to a certain strategy or policy (ie : the collection of the library of congress, the collection of the british film institute). The main purpose of a collection is to be used by the audience or the academics. A collection is persistent.
<b>Content</b>	Content is the combination of essence and metadata
<b>Content Element</b>	Content Element is a Video Book Element, which is used for visualizing the representation of the audio/video stream.
<b>Corpus</b>	A corpus is set of documents which has been gathered by an academic following a specific criteria (ex: "all the films from La Nouvelle Vague" or "All the films about the Eiffel Tower") generally through a collection(s). A corpus is build for a specific purpose (studying a subject, preparing an movie editing, ...). A corpus is not necessary persistent.
<b>Cue</b>	A cue is a point in time in a document defined by a user to be able to access it directly. Users can attach annotations to cues to be able to search and find them. A cue can be seen as a segment of duration zero.
<b>Cut</b>	A transition at a frame boundary from one clip to another.

## D

<b>Description scheme</b>	A description scheme is a formal definition of an annotation strategy. It defines, for each type of resource, which are the mandatory or optional fields to fill in as well as how annotations on segments can be temporally combined (i.e. overlap, follow each other) the same content.
<b>Digital container format</b>	Have to be seen together with a certain codec. The compression technique of the container format (wav, avi, Quicktime) depends on the used codec.
<b>Digital Versatile Disk</b>	See (for example) <a href="http://www.dvdvideogroup.com">http://www.dvdvideogroup.com</a>
<b>Digital Video Storage</b>	See Digital Video Storage Device
<b>Digital Video Storage Device</b>	This is a storage device, where digital video including audio can be stored.
<b>Document</b>	<p>A document is defined by Furuta as a "self-contained unit representing an identified intellectual contribution and exhibiting, to a certain extent, an intentional structure" . Audio-visual documents are intended to be watched as a temporal continuity, they are often started and followed by a title and a cast mention. Moreover, they are copyrighted by a producer and subject to author's rights. Documents can therefore be seen as a multi-dimensional object which:</p> <ul style="list-style-type: none"><li>· the recording medium: this is the medium on which the actual data necessary to re-create the audio-visual stream are stored. For instance, a video tape or a DVD are recording mediums;</li><li>· the recording format: this is the format according to which the data necessary to re-create the audio-visual stream are stored on the recording medium. For instance, MPEG-2 or MPEG-4 are recording formats;</li><li>· the display medium: this is the medium on or through which the actual audio-visual stream will be displayed. Video and computer screens as well as speakers and headphones are display medium;</li><li>· the physical display form: this is the physical form used to display the document to the user in the display medium. An analogue or digital audio-video signal is a physical display form;</li><li>· the semiotic display form: this is the form through which the document makes sense for the user. Namely, for audio-visual documents, the semiotic display would be moving images and sounds.</li></ul>
<b>Document Description</b>	<i>Controlled description</i> is a description created using a template and a controlled vocabulary (thesaurus, dictionary or list). Control of the way descriptions are generated is crucial in audio-visual libraries and archives since descriptions are the only means of access to the documents. Therefore, they have to be as systematic as possible to allow efficient search and retrieval based on their textual content.
<b>DVD</b>	See Digital Versatile Disk

## E

### **Editing**

In VIZARD editing means, to work on audio-visual data in the Publishing Area. This audio-visual data are represented by Content Elements which can be structured as Video Book. This can be done by manipulating Content Elements. Editing also means to navigate through the Video Book.

### **EDL**

Edit Decision List

### **Essence**

Essence is the real material itself, the result of the creative process.

## F

### **FIAT/IFTA**

Fédération Internationale des Archives de Télévision. International Federation of Television Archives, see <http://fiatifta.org/>.

### **Footage**

Aggregation of video essence, audio essence and vital metadata (like SMPTE time code for audio/video synchronisation) regardless of it's actual (analogue or digital) coding scheme. Therefore, footage comprises more than mere video unless some particular footage represent a silent movie.

## G

### **Generic format**

The encoded stream is independent of bit rate, resolution and image quality.

### **GUI**

Graphical User Interface

## H

## I

### **IASA**

International Association of Sound and Audiovisual Archives, see <http://www.llgc.org.uk/iasa/>.

### **IBC**

International Broadcast Convention - The most important annual exhibition of the professional broadcast and video production industry in Europe. Takes place in Amsterdam, Netherlands, early September. See <http://www.ibc.org.uk/>

**Interaction Time** This is the time, which VIZARD needs to calculate a process and refresh the display, which the user has started on the Graphical User Interface. This can be various for different interaction such capturing or editing.

**IPR related information** Intellectual Property Rights information.

**ISAD** International Standards for Archive Description

## J

## K

## L

**Layout Element** Layout Element is a Video Book Element, which is used to give the represented audio/video stream a structure like a book.

## M

**Media stream** A general notion concerning digital representations of essence. This compares to bit streams that may be rendered at any offset. Digitised footage (e.g. a documentary) can be imagined as an interlaced mixture (or multiplex) of short pieces of video and audio data that can be synchronised to and rendered at arbitrary moments.

**Metadata** Any information related to the essence or describing essence, but not the essence itself.

**MPEG-x** Moving Pictures Experts Group, see <http://www.mpeg.org>

## N

**NAB** National Association of Broadcasters - The most important - international - annual conference and exhibition of the professional broadcast and video production industry. Takes place in Las Vegas, USA, early April. IBC and NAB are the two most important event for the professional video industry. See <http://www.nab.org/>.

## O

## P

<b>Pre-editing</b>	Pre-editing is a pre-process step of editing on audio-visual data, which needs further editing.
<b>Pro-sumer</b>	Denotes the sector around the (semi-)professional consumer market (including home and office area)
<b>Publishing Area</b>	This is the area of the Video Publisher, where the audio-visual data can be edited.

## Q

## R

<b>Real-time</b>	Hard real-time is the highest priority operation. It must happen at a certain time, there is no opportunity to repeat, and there may not be an opportunity to re-do (e.g. a live event). Soft real-time operations must happen by a certain time and there may be an opportunity to re-do. At the end of the available time window, they become hard real-time; Non real-time operations need not be completed within time boundaries (e.g. file transfer that is faster or slower than real-time).
<b>Removable Storage Device</b>	This is a file system storage device, where digital data can be stored, e.g. hard disk, zip-drive, CD, DVD.
<b>Repository</b>	Is a project specific collection of elements, i.e. video content, still images, music, text documents, web documents or any other file type, organized in a hierarchical way. The repository is a subset of the archive like a shopping basket.
<b>Response Time</b>	See Interaction Time
<b>Right</b>	Right information shall be part of the metadata
<b>Rough Cutting</b>	Rough cutting is the first editing step, which cuts the essence in segments. Rough cutting can be done by an automatic shot-detection at the begin of editing.

## S

<b>Scene</b>	Is an action that occurs in one location at one time.
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<b>Segment</b>	A <i>segment</i> is a part of a document delimited by two temporal references. Its limits can be shot boundaries or not (a segment can start in the middle of a shot and end in the middle of another). A segment is mostly a mean to access directly to a point in a of a document, it is not a document by itself.
<b>Sequence</b>	A sequence is a series of shots or scenes which has a beginning, middle and end (like a chapter in a book).
<b>Shot</b>	A shot is a single uninterrupted action of a camera as seen by a viewer.
<b>SMIL</b>	See Synchronized Multimedia Interaction Language
<b>SOHO</b>	Small Office and Home Office
<b>Synchronized Multimedia Interaction Language</b>	Synchronized Multimedia Interaction Language, see <a href="http://www.w3.org/TR/WD-smil">http://www.w3.org/TR/WD-smil</a>

## T

## U

<b>UML</b>	Unified Modelling Language
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## V

<b>VContentElement</b>	The VIZARD content element encapsulates all internal attributes which are necessary to know about multimedia sources like video and audio. This could be the reference to an essence or an algorithm to create audio video essence on demand. Also the reference to the annotation of essence is encapsulated in the VContentElement.
<b>Video Annotation</b>	See Annotation.
<b>Video Annotation Operation</b>	A user action that associates a video annotation to a video object through a video visualization technique
<b>Video Book</b>	Video Book is the data format which handles the data for visualization, for annotation and for the layout, which is stored persistent on a storage device. The Video Book can be created in the publishing area of the Video Publisher by placing Video Book Elements.

<b>Video Book Element</b>	All needed elements to create a Video Book in the Video Publisher like Content Element, Layout Element and Annotation Element. Each of these elements encapsulate their internal attributes from their display relevant attributes.
<b>Video Editor</b>	A set of Hardware and Software tools that allows creation of video sequences, using others previous video sequences gathered from the same or different sources. Most of them stuck on time line representation.
<b>Video Lens composition</b>	The mechanism for aggregating several video lenses.
<b>Video Lens(es)</b>	A basic mechanism to create perspectives and annotation contexts for audio-visual information, supporting specialisation and composition.
<b>Video Navigator</b>	See VIZARD Explorer
<b>Video Object</b>	A video object can have several annotation where each annotation specifies a segment within the video object to which it applies. Therefore a video object represents a continues stream of moving images, e.g. an MPEG file. In the user interface a video object is visualized by a special icon according to its genre. We describe a video object by data parameters (linked mpeg file, encoding parameters, etc.) and by typical movie annotations (title, director, date, length, etc.).
<b>Video Publisher</b>	Video Publisher is one module of VIZARD. It is an application which actually creates a Video Book in the Publishing Area. With the Video Publisher, the user can act as author and compose a Video Book by using Video Book Elements. All these Video Book Elements are stored persistent in the Video Book. The Video Publisher has its own defined Video Book data format, which handles all Video Book Elements used in the Video Publisher area.
<b>Video Publisher Buffer</b>	This is a special clipboard-memory in the Video publisher work-area, which is used for copy Video Book Elements between Video Books in an open Video Publisher applications. Also it is used for data-exchange between other Windows application.
<b>Video Styles</b>	Layout definition of virtual video objects
<b>Video Visualization Method</b>	A particular perspective on the video objects based on physical or semantic criteria
<b>Virtual Video Object</b>	A virtual video object is described by links to parts of existing video objects, additional elements (overlays, graphics, etc.) and transition parameters. A virtual movie has no physical representation.
<b>VIZARD</b>	<u>Video Wizard</u> consisting of a Video Navigator, Video Publisher and an Annotation Wizard
<b>VIZARD Explorer</b>	This is the application for managing the Repository.

<b>VIZARD/AW</b>	Annotation component of the VIZARD software. See Annotation Wizard
<b>VIZARD/NE</b>	Navigation and editing component of the VIZARD software. See VIZARD Explorer and Video Publisher.
<b>VLocationTable</b>	A central table which is used by all repositories and video books and holds the data about the location (i.e. tape number) of an outsourced essence.

## W

<b>WAV</b>	Wav or wave is the windows standard format name for audio files. Similar to AVI, WAV is a "wrapper" around a particular audio format, which can be many different audio formats.
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## X

## Y

## Z

### 1.2 References To Other Glossarys

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Stadtfernsehen Eutin	<a href="http://www.sfe.purespace.de/glossar.html">http://www.sfe.purespace.de/glossar.html</a>
Quantel - The Digital FactBook	<a href="http://www.quantel.com/dfb/default.htm">http://www.quantel.com/dfb/default.htm</a>

### 1.3 Not Compatible Terms

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There are still some terms which could not fit in the current concept of the System Architecture.

<b>Essence</b>	The term essence summarises byte streams that carry data of hard real-time properties, i.e. (a) audio essence denotes sound of any kind (noise, voice, music) or (b) video essence denotes moving pictures or (c) other kind of data which are of value only with respect to the flow of time (simulation data, sensor data, meta data relating to audio and video)
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(simulation data, sensor data, meta data relating to audio and video).

<b>Personal archive</b>	This is the bookshelf on which authors gather all the resources necessary for their different creation projects. The personal archive might contain old resources that were used long ago as well as fairly recent resources that are going to be used during the current creation. Resources imported in the personal archive can be of different natures: audio-visual content belonging to the author or borrowed from a library, annotated extracts taken during a previous project, or videobooks created by the authors themselves. All these resources are of course ordered by files and structured by annotations so as to be easily searchable when useful for a new project.
<b>Placeholder</b>	Element of a story structure. A placeholder is a temporally defined zone in which audio-visual resources from the repository can be inserted and ordered. A placeholder has a title.
<b>Project</b>	When an author starts a new videobook, we will say that he/she starts a new creation project. A project combines a repository and a story structure. There can be many projects built out of the resources available in the personal archive.
<b>Repository</b>	The repository is used to gather resources selected from the personal archive in order to be used in a project. In the analogy of the book, this would be the specific resource file concerning the current book being written. Such a file is, of course, on the desk of the author, ready to be opened and used. The resources contained in the repository are selected from the personal archive by drag and drop or by searching on annotations or they are directly imported at the repository level, in which case they are automatically available in the personal archive too. They can of course be annotated and structured. The annotations created at the level of the repository can be made available back at the personal archive level. However, to preserve the coherence of the archive, these annotations should be stamped in order to keep a trace of the context in which they have been created.
<b>Resource</b>	Audio-visual data, videobooks, projects stored following the VIZARD file format , metadata exported following the VIZARD export format and story structure templates.
<b>Story structure</b>	A story structure is a table of contents for the book that is being created. Each title is attached to a placeholder in which content can be inserted by selection in the repository. This story structure can be modified by the author by cutting, copying and pasting placeholders in the structure. As far as audio-visual stories are concerned, the story structure is composed of temporally ordered placeholders (e.g. the author can decide to book a one minute placeholder for an interview after a 30sec long introduction). The story structure can therefore be visualised from different points of view through a storytelling interface: a temporal point of view or structural point of view.
<b>Story structure template</b>	Empty story structures can be created or opened in the storytelling interface in order to be used as templates for new audio-visual creations.

<b>Storytelling interface</b>	<p>This is interface used to visualise a story structure. This storytelling interface offers two ways to look at the content of the videobook, which follow the two pragmatic principles used for organising information of a two-dimensional plane:</p> <ul style="list-style-type: none"><li>- vertical structures (tree-view and book-like view) : this is this organisation scheme is used in brainstorming and modifying the overall structure of the story.</li><li>- horizontal structure (timeline view): this is the organisation scheme used in arranging sequences and aligning video, audio and text (rough editing).</li></ul> <p>Both principles might be supported by the VIZARD-Storytelling Interface: at any point in time the „view“ may be switched from a list to a timeline or is be shown simultaneously in two windows on one screen.</p>
<b>VIZARD exchange format</b>	<p>The format used to save a project, a repository, a videobook or only a story structure template on disk as a mean of exchange with other VIZARD users.</p>
<b>VIZARD file format</b>	<p>The format use to store the whole workspace or only a project on disk.</p>
<b>Workspace</b>	<p>The combination of the personal archive and of all the projects created by the user during his/her VIZARD sessions. The current state of the desktop (which project is opened, on what task), is also considered as part of the workspace. The workspace can be stored on disk when leaving the application in a VIZARD specific format in order to be loaded again at the entry in the next session.</p>