



## Automating Production of Cross Media Content for Multi-channel Distribution

[www.AXMEDIS.org](http://www.AXMEDIS.org)

### DE8.1.1.3

# Content for Test Cases and Validation Update

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**Abstract:**

This document is the updating of a supporting document for deliverable DE8.1.1 holding the set of contents available for the experimental phase of the project. Aim of the doc is to provide description and reference to provided content. In order to keep the document concise it relies on previous versions, thus beside the executive summary and report scope the document highlights content related responsibilities and builds on previous versions, trying to limit repetitions. Main sources of contents are reported along with some samples; then are provided details on the available contents in terms of list & references. The document ends with some conclusions on performed work and next steps plus a reference section

**Keyword List:**

Content, Test Cases, Validation, Metrics, Results

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## 1 Executive Summary and Report Scope

The present document is a support document meant to accompany DE8.1.1 which is in essence a collection of objects for the test and demo phases of the project. AXMEDIS content partners (including those of the take-ups) have relevant amount of digital content to be used in the project. The initial set of provided objects (fully reported and specified in DE8.1.1 Content For Test Cases and Validation v2.3) was mainly comprising either raw resources or non AXMEDIS objects. A good part of such contents and objects had been provided with usage constraints that would limit their exploitability to the internal testing phase. Since then partners have been producing a number of significant objects. Some of those objects have been used to test and internally validate tools, while others have been turned into AXMEDIS objects to be used in the demo phase. Thus at present the original set of raw content has been complemented by a collection of AXMEDIS objects (including rules and templates) that can be profitably used.

In the current document we will not report what already reported in the previous version of DE8.1.1 but simply focus on the new objects. It is assumed that all objects previously reported and holding no particular constraints will still be available to partners for the construction of additional objects (per se) or in combinations with the other existing AXMEDIS objects that will be reported hereafter.

Furthermore it is worth recalling that in other deliverables have been described the overall set of requirements addressed and the foreseen test cases that will allow proper validation of achieved results. In this latter document (DE2.2.1) have been pointed out needs in terms of dataset used. So also in the case of this update what reported there is the additional information needed to properly manage the content to be used for the test case development and validation phase. Activities related and impacting on this document are the one of the following Task.

**WP8.1 Content production for research test cases and validation** -- responsible ILABS -- The main goals of this WP are the production and the assessment of test sets for assessing and validating the following algorithms and processes. The following test cases will be produced in their first version in the first 18 months: fingerprinting content files, Audio beat tracking of polyphonic production for music pieces synchronization, Indexing cross media content, Analysis of multiple DRM rules enforced into the object, Compositional algorithms for creating aggregated content objects, Formatting algorithms for producing complex formatted objects to be directly distributed towards the final users, Profiling end –users and distributors, Sharing simple and complex objects on the AXEPTool, Protecting AXMEDIS content object and distributing them, Algorithms for direct translation of multilingual content , transcoding content, Production and usage of complex technical queries in the AXEPTool, Conversion of content in other formats, scaling, decoding, etc. Metadata comparison and integration, different catalogues in different formats and containing/including different types of content: images, video, audio, score, lyrics, orchestrations, etc The production of this content for test cases will start since the beginning of the research activity and in according with the planned results of that activity. The content partners such as ANSC, SEJER, ILABS, OD2, XIM, etc., agree in supporting the project producing this content under request. Other details: guidelines for the content production of test cases, form for modelling a content for validation and test cases, request form and presentation form, production and integration of requested content for validation and test

### 1.1 Responsibilities

ILABS is primary responsible for the completion of the present document, yet all content owning partners are responsible for providing the required contributions including content samples (in terms of aspect, description and metadata). Technical partners are responsible of document revision in terms of coherence with expected supported formats. Document sections responsible are reported in the section title within brackets. When a section, or subsection, has no explicit responsible is assumed that is in charge to the responsible of the previous one or is a general one to which all partners shall contribute. Given the nature of the deliverable DE8.1.1 (as stated in the TA it is of “other” nature), this document has to be intended as a reference to content stored and available for the sake of project development, evaluation and exploitation.

## 2 Main sources of contents

The present section reports basic info on the major content sources provided by consortium partners. The aim is to quickly recal what was/is available and thus introduce what has been produced/derived and will subsequently reported in terms of description and reference.

## 2.1 ANSC

Contents from ANSC consist in different types of archives; they are mainly related to the ANSC history and activity namely:

- **Historical archive:** contains documents from 1650 to present day.
- **Library:** music manuscript and early editions.
- **Archive of photographs:** photographs from the end of XIX century to present day related mainly to ANSC concerts but also various artists, singers, actors, musicians, and so on.
- **Sound archive:** 3 archives: Sound archive of concerts, Archive of oral traditional music, Archive of recordings.
- **Musical instrument museum:** Documentation about ANSC collection musical instrument: Photographs, technical drawings.
- **Archive of press \reviews**
- **Archive of playbills**
- **Chronology of the concerts from 1895 to present day**

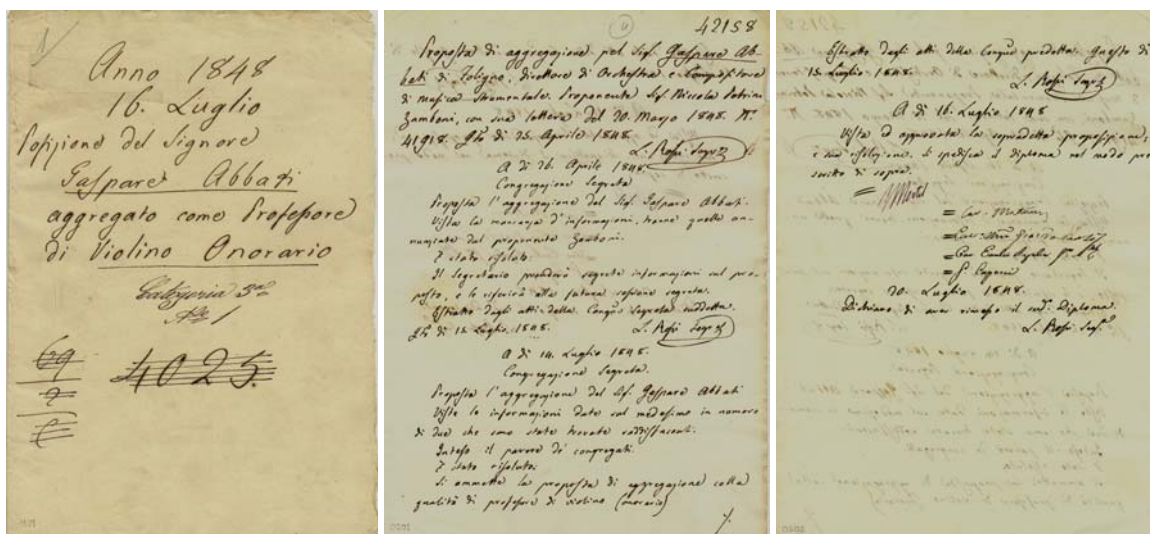
### Sample 1

The samples reported hereafter are part of the ethnographic archive and represent the documentation of a traditional celebration related to religion. They comprise audio recording and images.



### Sample 2

The samples reported hereafter are part of the historical archive. In the specific sample we have a XML file holding the data (not yet metadata as the application for dealing with the newly designed MAG format is not yet available) and images related to the personal recording of a member of the academy (only some of them are presented in the deliverable). Obviously this latter data is provided hereafter for testing purposes, as it cannot be disclose without proper approval of both the association and the earls of the member given the present rules about privacy.



### Sample 3

Pictures from the musical instruments collection



**Sample 4**

A Paganini portrait – Anonimo – Ritratto di Nicolò Paganini, olio su tela, Roma 1820 ca.




**2.2 ILABS**

Contents from ILABS consist in art related learning objects; covering topics like Artists, their life and works during ages from the 13<sup>th</sup> century till the 20<sup>th</sup>. The content has been organised into sections (artists, masterpieces, periods, ...). Original content is HTML based packaged according to IMS/SCORM standard.

**Sample 1**

Standard artist biography file holding a set of basic data (name, dates, description, quotation) and a selected image.

<b>Nome:</b>	Claude	
<b>Cognome:</b>	Monet	
<b>Neto a:</b>		
<b>Il:</b>	1840	
<b>Morto a:</b>	Giverny	
<b>Il:</b>	1926	
<b>Descrizione:</b>	Oscar-Claude Monet nasce a Parigi nel 1840 ma trascorre l'infanzia a Le Havre. Si rivela abile nella caricatura, ma il pittore Eugène Boudin lo convince a dedicarsi alla pittura di paesaggio. A Parigi dal 1859, s'iscrive all'Accadémie Suisse, e inizia a frequentare la Brasserie des Martyrs, luogo d'incontro di artisti e intellettuali. Nel 1860 è coscritto e parte per l'Algeria. Nel 1862, tornato a Parigi, conosce Sisley, Renoir e Bazille. È decisivo poi l'incontro con Courbet, di cui studia la tecnica pittorica. Nel 1865 espone per la prima volta al Salon con successo. Nel 1869 dipinge La Grenouillère, il suo primo quadro pienamente impressionista. Nel 1870, allo scoppio della guerra franco-prussiana, si trasferisce a Londra. Tornato in Francia, assillato dalle difficoltà economiche si trasferisce ad Argenteuil; qui nel 1872 dipinge Impression, sole nascente: il dipinto, esposto nel 1874 alla prima mostra impressionista, allestita a Parigi nello studio del fotografo Nadar, dà il nome al nuovo movimento artistico. Nel 1879 muore la moglie Camille, modella di tante sue opere. Le mostre a cui partecipa negli anni Ottanta - a New York da Durand-Ruel nel 1886 e a Parigi nella galleria Georges Petit nel 1889 - sanciscono definitivamente la sua notorietà. Dal 1892 va a vivere a Giverny con Alice Hoschede, che sposa nel 1892. Negli anni Novanta sono i cedi delle Cathedral of Rouen e quelli dedicati alle Ninfee, opere in cui la materializzazione del soggetto anticipa le ricerche dell'astrattismo. Gli ultimi anni della sua vita sono segnati da una grave malattia agli occhi; muore quasi cieco nel 1926, a Giverny.	
<b>Citazioni:</b>	Nessuno come lui sa erigere una roccia nelle onde tumultuose, far comprendere l'enorme struttura di uno scoglio che riempie tutta la tela, disporre un villaggio su una collina dominante un fiume, dare la sensazione di un gruppo di pini contorti dal vento, gettare un ponte su un fiume, esprimere il carattere del suolo che giace sotto il sole dell'estate. Tutto ciò è costruito con vastità, esattezza e forza, sotto la sinfonia deliziosa o ardente degli atomi luminosi. I toni più improvvisi si alternano nel fogliame; da vicino ci si stupisce di vederlo listato con strisce arancio, rosse, blu, gialle, e a distanza la freschezza delle fronde verdi appare evocata con infallibile verità. L'occhio ricomponde ciò che il pennello ha dissociato e ci si accorge con stupore di tutta la scienza, di tutto l'ordine segreto che ha diretto questo ammassamento di macchie che sembravano spruzzate in una pioggia furiosa, e una vera musica d'orchestra in cui il colore e uno strumento con un ruolo distinto, e i cui momenti, con le loro tinte diverse, costituiscono i temi successivi.	
	C. Maudclair, L'Impressionisme, son histoire, son esthétique, ses maîtres, 1904	

### Sample 2

Detailed description of an exhibited object providing info on the object per se (dimension, technique, location...) and on the history and literature related to it.



**Titolo:**  
**Sottotitolo:**  
**Data:**  
**Tecnica:**  
**Dimensioni:**  
**Luogo di conservazione:**  
**Commento:**

San Gerolamo penitente  
San Gerolamo penitente  
1490-1492  
olio su tavola  
75x103  
Roma, Pinacoteca vaticana  
Nulla sappiamo di questo dipinto che venne probabilmente eseguito durante il soggiorno fiorentino di Leonardo: a questo periodo riconduce l'interesse per la figura umana e per la rappresentazione dei movimenti di quest'ultima nello spazio. Il dipinto, come la coeva Adorazione dei magi, lasciato incompiuto, ma proprio questo stadio d'incompletezza conferisce alla figura una forte e intensa drammaticità. Particolarmente studiato è il modello anatomico indagato dalla luce che possiede compattezza e articolazione scultorea. San Gerolamo è ambientato in un anfratto roccioso, sullo sfondo di un paesaggio appena sbizzato, tipico dei profondi e brumosi fondali dei dipinti leonardeschi.

### Sample 3

Brief description of an exhibited object providing mainly info on the content.



**Titolo:**  
**Descrizione:**

Gabriele arcangelo  
Araldo delle nascite, l'arcangelo Gabriele, oltre che nel Vangelo di Luca, compare nel Libro di Daniele del Vecchio Testamento e nel Corano: per questo la sua figura è venerata anche dagli ebrei e dai musulmani. La sua comparsa preannuncia la nascita di Maria, di Giovanni Battista e di Gesù Cristo. Si identifica con Gabriele l'angelo che appare alla madre di Sansone per annunciarle la nascita del figlio e quello che si manifestò ai pastori per invitarli ad adorare il Bambino nella grotta di Betlemme: per questo motivo può comparire anche nella Natività. Gabriele è anche l'angelo che si presenta alle pie donne al sepolcro di Cristo dopo la sua resurrezione. Nell'Annunciazione alla Vergine regge un giglio, simbolo della purezza di Maria, oppure uno scettro.

## 2.3 AFI

Contents from AFI consist mainly in audio files. The archive contains all CDs produced by AFI associated. For each CD is available info about all the recordings (audio tracks) included in the CD with their own related data: title, version (original, remix...), length, artists, authors, composers, publisher, producer, ISRC code, catalogue number, label. For the testing phase a sample of items (music tracks) have been identified and delivered. Their format is twofold:

- **AIFF** – to provide the best possible quality, but a drawback is the average dimension of the file that makes it unusable for distributions channels where file dimension is a major limit either for bandwidth or storage usage (on average file size is 29 Mb).
- **MP3** – to provide a good quality level but a much affordable size (on average file size is 3 Mb)

## 2.4 XIM

Content from XIM consist of movie clips in a variety of formats, jpeg images and flash animations, plus some interactive mini-games. Movie clips have been encoded by XIM from high quality analogue source

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(usually Beta SP), audio is encoded from uncompressed 16bit/44.1KHz, usually transferred digitally from original film soundtrack stems, and still images are from high resolution scans from 35mm transparency.

- **Film-related content** – This content has been developed by XIM for film distributors and can be freely used for testing and validation within AXMEDIS. These movie clips, mini-games, screensavers, wallpapers and other content were developed for ‘viral marketing’ purposes, whereby end-users are encouraged to download and share the content for means of promotion of the related feature film.
- **EDiCT dissemination content** – This set of movies and animations was developed by XIM as part of the IST Project EDiCT, and was used in DVD format at exhibitions and online in SWF format to explain the architecture and workflow of the project. The objects consist of MPEG2 files along with an interactive SWF version for online viewing. Again, this content can be freely used within AXMEDIS.

#### Sample 1

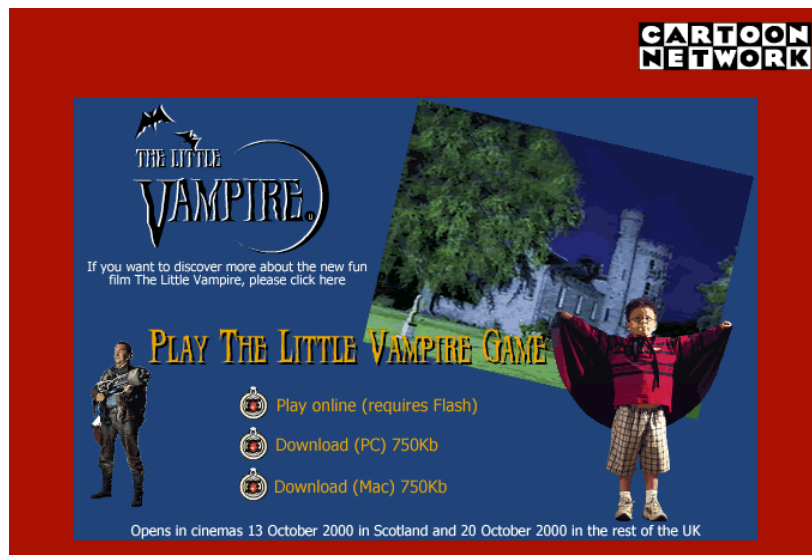
Compressed downloadable movie trailer (QuickTime 1min 58 secs, 480x268 resolution, 13FPS, 14.86Mb). Smaller, more highly compressed versions also available.



#### Sample 2

Flash-based game to promote film release. Contains MP3 audio from film soundtrack, bitmaps from film grabs, interactive scripting for impact detection, scoring etc.

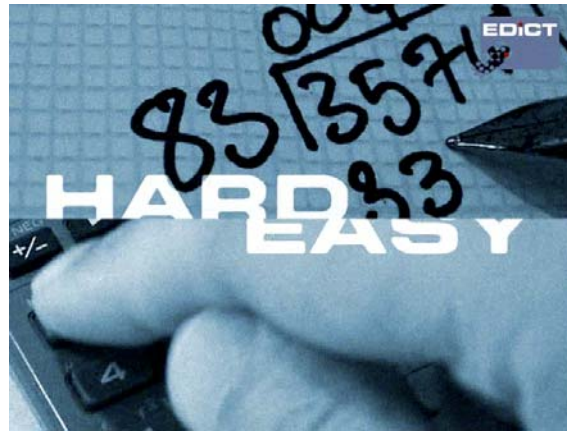
Complete microsite available (screen grab below), with downloadable versions of game as well as SWF online play.



#### Sample 3

The animation content created by XIM for the EDiCT IST project can be used very flexibly for testing as we can provide a wide range of formats including the uncompressed animation video (over 940Mb).

Mpeg2 video track, part of DVD.



### 3 Content list & references

To allow an easier management of content references it was agreed (in April 2007 at the Rome Content Meeting) to have a wiki page<sup>1</sup> hosting some of the most remarkable examples of content (if needed also including templates and rules) as well as an excel file where partners should report not only data on the content produced but also on the related granted permission.

 This is a screenshot of a web browser displaying the AXMEDIS Framework Wiki page. The page title is "AXMEDIS Cross Media Content: Examples". Below the title, there is a section titled "Sample AXMEDIS MPEG-21 objects". A table lists two examples: an image and a gallery. The table has columns for Example format, Title, Description, Creator, Size, and Download.
 

Example format	Title	Description	Creator	Size	Download
IMAGE	Gavin Fernandes Photographs	XIM This object contains a collection of 14 JPEG images from London-based photographer Gavin Fernandes. Any kind of image format can be included into an AXMEDIS object		3.08Mb	<a href="#">Download</a>
GALLERY	Mandolin	ANSC This object demonstrates multiple linked html pages		1.94Mb	<a href="#">Download</a>

In the current section we report info on the related Excel file and its content, so to make it usage more intuitive and faster. Furthermore we report also some data on produced objects and a simplified list of them. For a more detailed set of data it is suggested to access the related Excel file (axmedis-list-of-objects-for-demonstration-v2-1.xls) from the project site and provided as part of the DE8.1.1.3 (given it nature of "other").

<sup>1</sup> <http://www.axmedis.org/tiki/tiki-index.php?page=AXMEDIS+Cross+Media+Content%3A+Examples>  
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### 3.1 File structure

The Excel file is structured in different sections each characterized by a specific scope. In the following paragraph we will report synthetically a description of each table section providing also an example to clarify the structure and expected usage of provided info.

#### 3.1.1 Object identification

The first section aims to allow object identification thus holds its file name, URI and AXOID. This section represents the first 3 columns of the sheet and is in the non side-scrollable area of the sheet.

Object identification		
Filename	URI	AXOID
miraclemaker.axm	P2P	
miraclemaker-trailer-movie-mpeg4.axm	P2P	urn:axmedis:00000:obj:a890c2b5-69e1-4031-98a8-2a3d6b46274e
littlevampire-game-flashhtml-xim.axm	P2P	urn:axmedis:00002:obj:fd280df9-716d-36e8-ae71-4985ac46d0c7
Xim-garden-P7271878C-PDA.axm	(URI unknown)	URN:AXMEDIS:00002:OBJ:2C97BBC6-EB0E-3225-A85B-89F88A920611
Xim-garden-P7271879C-HiRes.axm	(URI unknown)	URN:AXMEDIS:00002:OBJ:51F8AA5A-D06F-3008-B00A-06B4A03225D0
Xim-garden-P9062239-PDA.axm	(URI unknown)	urn:axmedis:00000:obj:5e4ae82b-7820-40a8-a37e-54a185c7cfb9
Xim-garden-P9062240-HiRes.axm	(URI unknown)	urn:axmedis:00000:obj:f23dbdd2-677f-4d28-9674-239b94556353
VRS teaser 1-mpeg4.axm	VRS teaser 1.axm	

As it apparent from the example reported above the object could have a specific URI (for example being located onto the P2P infrastructure or not). In a similar fashion the provided AXOID could be a final one (all-capital) or a non-final one (NON all-capital). After the identification area follows a section in which are reported some of the most important object metadata taken form the Dublin Core/AXInfo, namely: Title, Subject, Creator, Version, Description and Language. In the cases either the URI or the AXOID information is missing it has to be assumed that in the former case the object is stored on the file system of the content owner, while in the latter the object is very much probably either a resource (and thus not an AXMEDIS object) or a component of a collection.

#### 3.1.2 Object basic metadata

In this section of the table are reported the basic metadata of the object. They are belonging either to the Dublin Core or to the AXInfo section of the object metadata. In more detail for each object is possible to specify the Title, a subject, the Creator, the version, a description and the available languages. In case more languages are available they are reported in sequence separated by a slash (/). Additionally, and mainly for the sake of completeness, for some content it has also been specified if it is in UK or international English (in the former case it is reported en-uk).

Dublin Core/AXInfo					
Title	Subject	Creator	Version	Description	Language
collection of jpeg objects	miracle maker	XIM	1	gallery of 60 stills from the film	en-uk
The Miracle Maker official trailer	miracle maker	XIM	1	mpeg4 movie of official trailer for The Miracle Maker	en-uk
flash game	little vampire	XIM	1	complex game, 5 levels, sounds	en-uk
garden Photo (for PDA)	garden Photo (for PDA)	XIM	1	A picture from the series: garden Photo (for PDA); P9062239.JPG	en-uk
garden Photo (High Res)	garden Photo (High Res)	XIM	1	A picture from the series: garden Photo (High Res); P9062240.JPG	en-uk
VRS teaser 1	VRS kamera teaser	VRS	1	Short clip from "themes" series No 1	LTU

### DE8.1.1.3 – Content for Test Cases and Validation

It is worth recalling that for the Creator name we have adopted some conventions that are directly connected to some computation function present in the document and that are used for management purpose. In more detail, given the need to report metrics on content collection and production, it has been decided that reported objects will be counted on the basis of the contributor as well as on their nature and available language to this purpose an additional column has been inserted after the last section where have to be inserted an overall indicator of the item nature. This has been necessary as the values reported in the Format(s) column are too varied in terms of description to be profitably used by counting formulas. Adopted values are:

Acronym	Meaning
Aud	Any kind of audio
Imag	Any kind of image
Video	Any kind of vide
MM	HTML, SMIL and any kind of multimedia <sup>2</sup>
Game	Executable non web-based games
Other	Other kind of resources

With this rough partitioning the 9952 overall currently collected objects are then divided as follows:

Object type	# of Items available
Aud	57
Imag	506
Video	69
MM	9319
Game	0
Other	1
<b>Total</b>	<b>9952</b>

Beside these conventions for object counting there are other which we report hereafter for reference:

Acronym	Meaning	Value to insert
EN	English content (either in International English sort of in UK one)	En, en-uk, EN, en
IT	Italian content	It, IT, it
FR	French content	Fr, FR, fr
LTU	Lithuanian content	Ltu, LTU, ltu
EN-IT	Bi-lingual content either Italian-English or English-Italian	EN/IT, IT/EN

Given this partitioning the overall collection presents the following language distribution value:

Language	# of Items available
EN	5922
IT	3226
FR	3
LTU	27
EN-IT	774
<b>Total</b>	<b>9952</b>

Many objects have been posted both on the P2P and on the project portal, some have been handed out directly to the coordinator.

<sup>2</sup> Please note that most of provided text belongs to ILABS collection and is integral part of HTML objects.  
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Also contributors names had to be standardized for the same computational reasons previously mentioned. What follows is both the set of adopted acronyms and the related count.

Acronym	Partner
AFI	Associazione Fonografici Italiani
ANSC	Accademia Nazionale di Santa Cecilia
ILABS	GIUNTI Labs
TISCALI	Tiscali
VRS	VRS
XIM	Xim

With this rough partitioning the 9952 overall currently collected objects are then divided as follows:

Partner	# of Items available
AFI	50
ANSC	769
ILABS	8540
TISCALI	5
VRS	27
XIM	561
<b>Total</b>	<b>9952</b>

### 3.1.3 Resource technical data

Follows a section covering resource technical data like the total number of resources, their format(s) or the set of included format in case of complex objects, the resolution and the total file size expressed in Kb.

Resource technical data			
Total no. of re-sources	Format(s) in-cluded	Resolution	Total file size Kb
60	image/jpeg (collection)	576x384	3652
1	video/mpeg4-generic	480x276	6686
1	text/html + application/x-shockwave-flash		965
3	Format: DC: multipart; image/jpeg; ; OBJ P9062239.jpg: image/jpeg; OBJ P9062239.jpg: image/jpeg; OBJ P9062239.jpg: image/jpeg	Resolution: P9062239.jpg: 480x360.P9062239.jpg: 240x180.P9062239.jpg: 160x120.	112 Kb
1	Format: DC: image/jpeg; ; OBJ P9062240.jpg: image/jpeg	Resolution: P9062240.jpg: 2816x2112.	932 Kb
1	ffdshow mpeg 4	720x576	2760

### 3.1.4 Potential Available Rights

Then follows a section on Potential Available Rights. The section is subdivided in three sections. The first covering *allowed distribution*, in other terms for which demonstrators it is available (P2P AXCEPTool, TISCALI PC & P2P, ILABS ANSC PDA, ILABS mobile, ELION STB, TEO STB, BBC STB, EUTEL-SAT/UNIVLEEDS/MB, TI Mobile) and if it is possible to be inserted in the physical media distributed at

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conferences or fairs attended by partners. Then follows a section on *allowed changes*, in other terms if it must-be protected using AX/OMA, which is the allowed usage duration (Unlimited/Until 2010), if it can be adapted or transcoded. Finally there is a section on object *use*. This last section is mainly intended for the potential final user and then covers only two kinds of expected usage, namely play (which has to be intended as overall rendering on nay of the allowed demonstrator platforms depending on the kind of object and format) and printed which retains its meaning for objects that can be printed (like documents) while has to be intended as storage on a CD or other media in case of other formats.

Potential Available Rights															
Allowed distribution...										Allowed changes...			Use		
P2P via AXCEPTool?	DVD for conferences etc.?	via TISCALI PC & P2P?	via ILABS ANSC PDA?	via ILABS mobile?	via ELION STB?	via TEO STB?	via BBC STB?	via EUTELSAT/UNIVLEEDS/MBI?	via TI Mobile?	Must-be protected using AX/OMA?	Duration Unlimited/Until 2010?	Can be adapted?	Can be transcoded?	play?	printed?
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	U	N	Y	Y	Y
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	U	N	Y	Y	Y
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	U	N	Y	Y	Y
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	U	Y	Y	Y	Y
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	U	Y	Y	Y	Y
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	N

From the above example it is evident that the structure as well its content deserve a bit more explanation. In more detail it is necessary to understand for each column the meaning of the reported data and the range of possible values. What reported here refers mainly to availability for distribution to final user for fruition..

Allowed distribution	Meaning	Possible values			
P2P via AXCEPTool	The content will be sharable via P2P	Y	Allowed	N	Not allowed
DVD for conferences etc	The content can be used for being included in physical distribution like	Y	Allowed	N	Not allowed
via TISCALI PC & P2P	The content can be used in the distribution scenario managed by Tiscali and also on P2P	Y	Allowed	N	Not allowed
via ILABS ANSC PDA	The content can be used in the distribution scenario managed by ILABS in cooperation with ANSC and used on PDAs	Y	Allowed	N	Not allowed
via ILABS mobile	The content can be used in the distribution scenario managed by ILABS in cooperation with ANSC and used on Mobiles	Y	Allowed	N	Not allowed
via ELION STB	The content can be used in the distribution scenario managed by ELION and used on their Set Top Boxes	Y	Allowed	N	Not allowed
via TEO STB	The content can be used in the distribution scenario managed by TEO and used on their Set Top Boxes	Y	Allowed	N	Not allowed
via BBC STB	The content can be used in the distribution scenario managed by BBC and used on their Set Top Boxes	Y	Allowed	N	Not allowed
via EUTELSAT/.../MBI	The content can be used in the distribution scenario managed by Eutelsat and used on	Y	Allowed	N	Not allowed

DE8.1.1.3 – Content for Test Cases and Validation

	<b>MBI Set Top Boxes</b>				
via TI Mobile	The content can be used in the distribution scenario managed by Telecom Italia and used on Mobiles	Y	Allowed	N	Not allowed

It is worth mentioning that at present it could be possible that a No value has been inserted thinking that the kind of content is not suitable or available for a given platform for many reasons, thus it is possible that this section of the table may change (even quite consistently) during the first stages of the project experimentation in live demos.

The part related to allowed changes provides info on object aspects related to distribution, but more focused on its protection and availability. It also includes info on the degree of freedom a distributor/aggregator has in using this content for distribution, thus what reported here refers mainly to availability for B2B distribution as well as constraints for distribution to final user for fruition.

<b>Allowed changes</b>	<b>Meaning</b>	<b>Possible values</b>			
Must-be protected...	Provided content has copyright aspects that have to be enforced	Y	It will be necessary to provide the end-user a license	N	The content will be freely accessible
Duration Unlimited / Until 2010	Provided content will be available for usage within a limited period of time after which it will be no more usable	U	Unlimited usage	L	Limited usage (the limit is either specified or 2010)
Can be adapted	Provided content can be adapted by the aggregator/distributor (a license may be needed for this depending on protection needs)	Y	Allowed	N	Not allowed
Can be transcoded	Provided content can be transcoded by the distributor (a license may be needed for this depending on protection needs)	Y	Allowed	N	Not allowed

The part related to allowed usage provides info on object aspects related to usage after distribution to the end user. It includes info on the possible usage an end-user may have of the accessed content.

Given the project nature and the characteristics of the devised demonstration scenarios the expected usage are only two, namely:

<b>Allowed usage</b>	<b>Meaning</b>	<b>Possible values</b>			
Play	Has to be intended as overall rendering on any of the allowed demonstrator platforms depending on the kind of object and format	Y	Allowed	N	Not allowed
Printed	Has to be intended as the possibility to print out printable content or as storage on a CD or other media in case of other formats	Y	Allowed	N	Not allowed

This last two parts of the file has been inserted to represent the starting point for the definition of a common base of accepted potential usage grants that would then have to be translated into actual license grants for the various users. This process will have to be properly set-up and deployed for each kind of users. It is expected that the adoption of templates for the various kind of licenses could be adopted in combination with rules and AXCP to properly handle such a massive amount of work that will have to be put in place in order to associate the right license for the right set of right to the right object for each expected usage and user couplet.



## 4 Conclusions

So far project partners have been capable to provide a quite varied set of raw content assets that have enabled an extensive and complete set of test cases both for manual and automated production. On the basis of the initially provided set of raw content and tanks to the selection policies and guidelines derived in time, it has been also possible to generate a rather extensive set of objects that are currently available for both internal testing and demonstration. The set of produced object encompasses most of the market relevant formats and grants a successful exploitation of the planned demonstrators. Furthermore partners have also shared rules and templates thus enabling learning from each-other experience, problems and errors with a constant mutual exchange of knowledge and expertise and also accommodating improvements coming from comments received either from partners or external experts.

Future expected work is mainly related to the set-up of proper set of objects, from raw resources to the most complex AXMEDIS objects – including rules – to be associated with the various tools for dissemination and explicative / tutorial purposes.

## 5 References

DE3.1.2.3.1 Spec of AXMEDIS General Aspects of AXMEDIS Framework

DE3.1.2.3.2 Spec of AXMEDIS command manager

DE3.1.2.3.3 Spec of AXOM and Protection Processor

DE3.1.2.3.4 Spec of AXMEDIS Editor and Viewers

DE3.1.2.3.5 Spec of External Editor and Viewers Players

DE3.1.2.3.11 Spec of AXCS and Networks

DE4.1.1.3 Content Modelling and managing

DE4.2.1.3 Content indexing, monitoring and querying

DE4.3.1.3 Content Composition and formatting

DE4.4.1.3 Content sharing and production on P2P

DE4.5.1.3 Content Protection and Supervision

DE8.1.1 Content for Test Cases, Validation, and Demonstration

DE8.5.1.2 Collection of editorial formats and DRM rules for multi-channel

DE8.4.1.3 AXMEDIS Editorial Format Guidelines and basic examples