

AXMEDIS

Automated Production of Cross Media
Content for Multichannel Distribution



AXMEDIS ACTIVE X PLAYER USER MANUAL

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INTRODUCTION

Dear AXMEDIS user,

Welcome to *AXMEDIS ActiveX Manual*, the official training workbook for the program that has as main aim to play rich and interactive content.

With this guide, the AXMEDIS team is hoping to help users to play easily AMEDIS objects to show how simple and powerful this tool is.

AXMEDIS is a very complex and complete world and it is very difficult to cover all the aspects in only one manual.

Remember to not hesitate to contact the AXMEDIS team if you need additional information or to point out mistakes in this manual. Also don't hesitate to visit the AXMEDIS portal where you can find many other information regarding the AXMEDIS technology, with many real examples and objects.

OVERVIEW

This document aim is to describe the User Manuals of AXMEDIS ActiveX Player.

AXMEDIS ACTIVEX PLAYER

MAIN FUNCTIONALITIES

The AXMEDIS ActiveX can be used to visualize and use AXMEDIS Objects inside MS Windows applications or inside web browsers.

The ActiveX exposes a set of functionality allowing to:

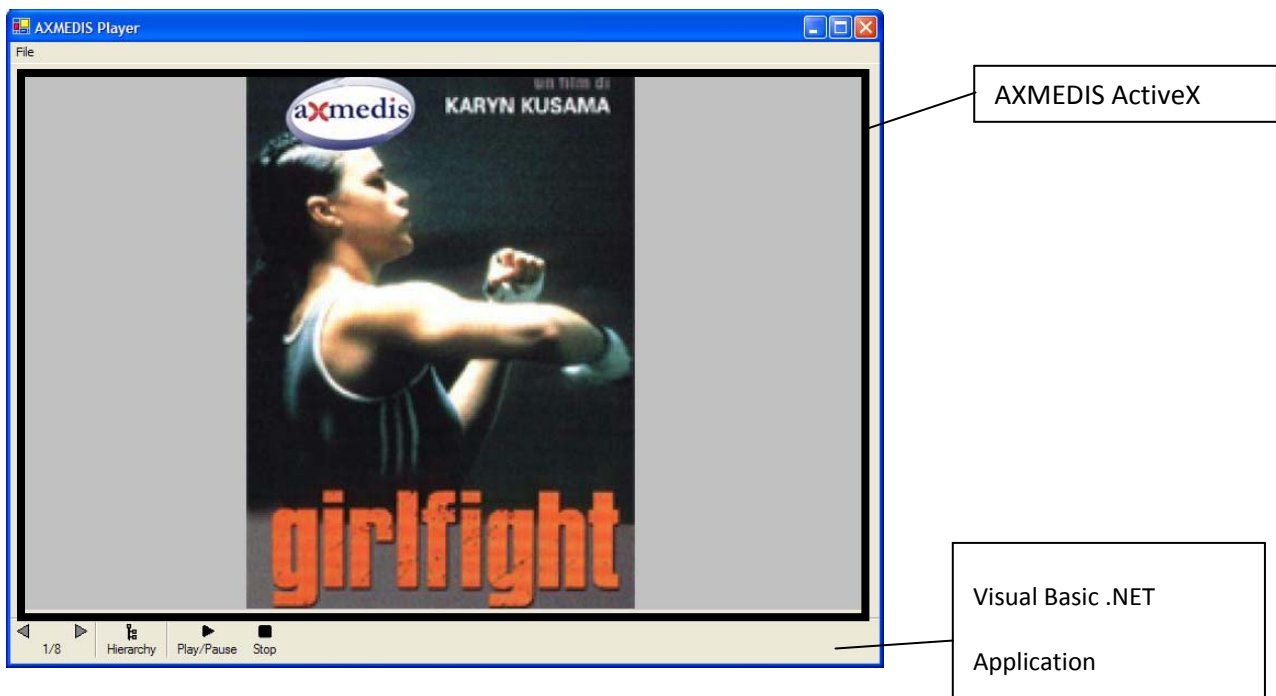
- open an AXMEDIS object from file system or from an URL (downloading)
- access to some information on the AXMEDIS Object, (e.g. content count, content mimetype)
- visualize the content that is present inside the AXMEDIS Object.
- control the visualization of the content (play, pause, stop, etc.)
- hide/show the hierarchy view of the object
- visualize the Dublin Core Metadata of the whole object
- show the licence available for the user on the object (not yet available)

RELATIONSHIP WITH OTHER TOOLS

None

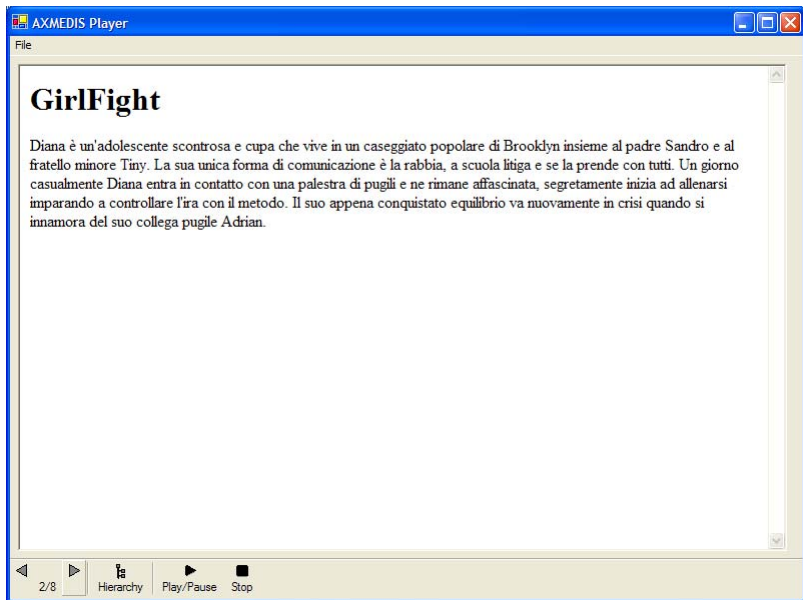
DETAILED DESCRIPTION OF THE FUNCTIONALITIES AND SCREENSHOTS

The following pictures show the use of the AXMEDIS ActiveX inside a Visual Basic Application implementing a basic player. The ActiveX user interface does not present any button controls to allow the customization of the user interface, the visual area is used to display the resources.

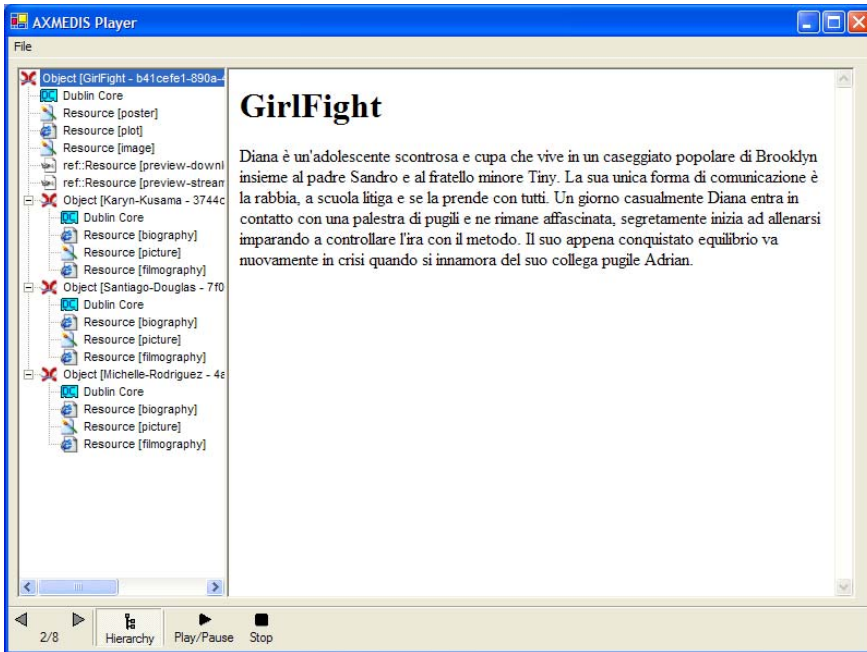


The Left and Right arrow buttons (defined in the VB application) use the *OpenContent(n)* method of the ActiveX to open a specific content stored in the AXMEDIS object, the Hierarchy button use the *ViewHierarchy* property to view/hide the AXMEDIS Hierarchy, the Play/Stop button use the *Play/Stop* methods to control the execution of Audio/Video resources.

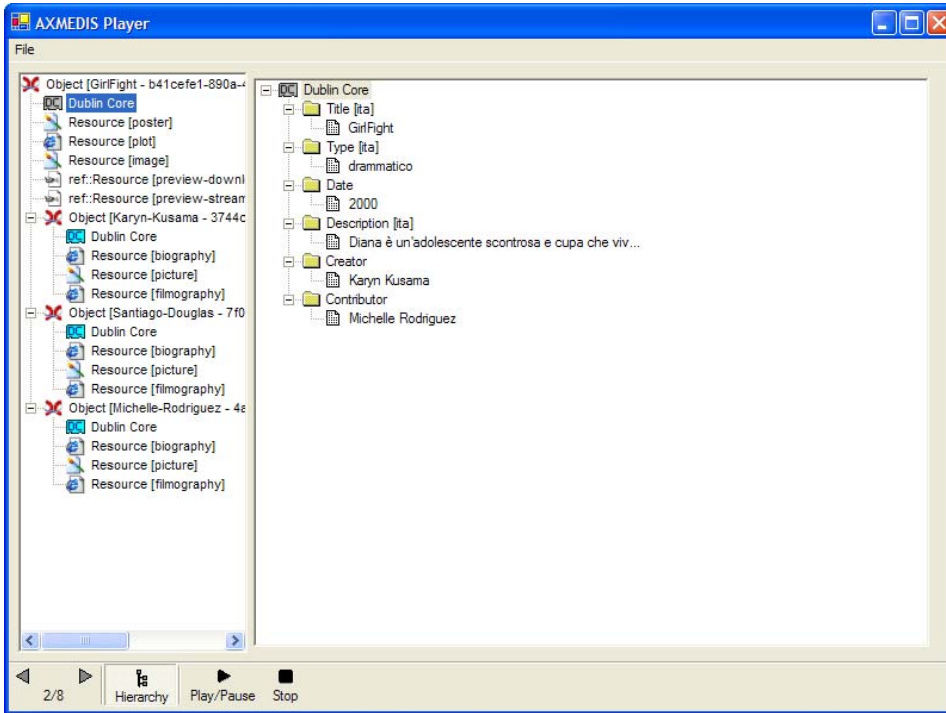
For example clicking on the Right arrow the second resource is shown (the movie plot):



and clicking on the Hierarchy Button the hierarchy is shown:



Double clicking on the Dublin Core element the Metadata is shown:



AXMEDISVIEWERCTRL

BASIC INTERFACE

Method Load	
<i>short Load(string url)</i>	
Description	Loads and AXMEDIS object from an URL or from file system, it tries to open the first SMIL resource available or otherwise the first Resource/AXObject available
Input parameters	<ul style="list-style-type: none"> <i>string url</i> – the url or file to be opened (e.g. "http://AXMEDIS.org/demo/demo1.axm", "c:\AXMEDIS-objects\test.axm"), protocols supported are be http and ftp,
Return value	returns 0 if the object can be successfully loaded, 1 if the object cannot be loaded, 2 if the content cannot be opened (missing license)
Remarks	In case of load failure an empty object is present
Property ContentCount (read only)	

<i>short ContentCount</i>	
Description	number of content elements (resources/axobjects) at the first level
DefaultValue	0
Property BackgroundColor (read write)	
<i>string BackgroundColor</i>	
Description	the colour to be used as background (e.g. "#ffffff" for white)
DefaultValue	"#ffffff"
Property ViewHierarchy (read write)	
<i>bool ViewHierarchy</i>	
Description	indicates if the AXMEDIS Hierarchy view has to be shown or not.
DefaultValue	False
Method GetContentType	
<i>string GetContentType(short contentPos)</i>	
Description	allows to get which kind of content is present at a specific position (1..ContentCount)
Input parameters	<ul style="list-style-type: none"> <i>short contentPos</i> – position of the content to be analyzed
Return value	returns "RESOURCE" or "AXOBJECT"
Remarks	In case of invalid position returns ""
Method GetContentMimeType	
<i>string GetContentMimeType(short contentPos)</i>	

Description	allows to get the mimetype of content at a specific position (1..ContentCount)
Input parameters	<ul style="list-style-type: none"> • <i>short contentPos</i> – position of the content to be analyzed (1..ContentCount)
Return value	returns a mimetype for a resource and the mimetype of the resource really played in case of an embedded AXMEDIS object (e.g. it can return "application/smil" if the object contains a SMIL resource)
Remarks	In case of invalid position returns ""
Method OpenContent	
<i>void OpenContent(short contentPos)</i>	
Description	allows to open a content at a specific position (0..ContentCount), position 0 means the object itself. If the content to be opened is an AXMEDIS object it: <ul style="list-style-type: none"> - runs the first method with autorun set to true - otherwise opens the first smil resource found - otherwise opens the first html resource found - otherwise opens the first resource
Input parameters	<ul style="list-style-type: none"> • <i>short contentPos</i> – position of the content to be opened (0..ContentCount)
Return value	None
Remarks	None
Method ShowMetadata	
<i>void ShowMetadata()</i>	
Description	allows to show the metadata of the whole object (using Dublin Core information)
Input parameters	None
Return value	None
Remarks	None

Method ShowLicense	
<i>void ShowLicense()</i>	
Description	allows to show the license available on the object
Input parameters	None
Return value	None
Remarks	Not yet available
Property NeedLicense (read only)	
<i>bool NeedLicense</i>	
Description	Indicates if a license is needed to view the object
DefaultValue	False
Property HaveLicense (read only)	
<i>bool HaveLicense</i>	
Description	Indicates if is available a license to view the object
DefaultValue	False
Remarks	Not yet available
Property AXOID (read only)	
<i>string AXOID</i>	
Description	Indicates the AXOID of the opened object
DefaultValue	""

Property AXUID (read only)	
<i>string AXUID</i>	
Description	Indicates the AXUID (user identifier) that registered the activex, this AXUID is used when performing actions under DRM. If empty means that the activex it is not bound to an user and operations under DRM will fail.
DefaultValue	""
Remarks	It is set using the ImportUserCertificate method
Method ImportUserCertificate	
<i>short ImportUserCertificate(string certificatePath, string password)</i>	
Description	allows to bound the activex with an user via a user certificate.
Input parameters	<ul style="list-style-type: none"> • <i>string certificatePath</i> – the path to a local file containing a PKCS12 certificate identifying the user • <i>string password</i> – password of the certificate
Return value	Returns 0 when fails
Remarks	The password is stored in the activex configuration, the configuration is saved when the activex is unloaded
Method Certify	
<i>short Certify()</i>	
Description	allows to register on the AXCS server via PMS the tool and to obtain a certificate identifying the tool.
Input parameters	None
Return value	Returns 0 when fails
Remarks	If the tool is already certified this method does nothing. The activex have to be certified to perform actions under DRM otherwise they fail.

VISUAL CONTROL INTERFACE

Property SupportVisualControl (read only)	
<i>bool SupportVisualControl</i>	
Description	indicates if for the currently opened content the visual control methods can be used
DefaultValue	False
Property Zoom (read write)	
<i>double Zoom</i>	
Description	is the zoom factor to be applied (1 = 100%)
DefaultValue	False
Remark	if the zoom factor is changed the AutoFit property is set to false
Property AutoFit (read write)	
<i>bool AutoFit</i>	
Description	when true indicates to resize the visual content to be fitted inside the window
DefaultValue	True
Remark	None
Method Fit	
<i>void Fit(double width, double height)</i>	
Description	fits the zoom factor to display the image at the desired size (keeping aspect ratio)
Input parameters	<ul style="list-style-type: none"> <i>double width, height</i> - the image size in pixels

Return value	None
Remarks	the AutoFit property is set to false
Method FitToWindow	
<i>void FitToWindow()</i>	
Description	fits the visual content to the size of the image
Input parameters	None
Return value	None
Remarks	the AutoFit property is maintained
Method ZoomIn	
<i>void ZoomIn(double perc)</i>	
Description	Increments the zoom factor of the given percentage
Input parameters	<ul style="list-style-type: none"> <i>double perc</i> – the percentage used to increment the zoom factor (e.g. 10 for 10%)
Return value	None
Remarks	the AutoFit property is set to false
Method ZoomOut	
<i>void ZoomOut(double perc)</i>	
Description	Decrements the zoom factor of the given percentage
Input parameters	<ul style="list-style-type: none"> <i>double perc</i> – the percentage used to decrement the zoom factor (e.g. 10 for 10%)

Return value	None
Remarks	the AutoFit property is set to false
Property FullScreen (read write)	
<i>bool FullScreen</i>	
Description	when true switch to full screen mode
DefaultValue	False
Remark	None

TIME CONTROL INTERFACE

Property SupportTimeControl (read only)	
<i>bool SupportTimeControl</i>	
Description	indicates if for the currently opened content the time control methods can be used
DefaultValue	False
Method Play	
<i>void Play()</i>	
Description	Starts playing the content or continue in case of pause
Input parameters	None
Return value	none
Remarks	has no effect if it is already playing
Method Pause	

<i>void Pause()</i>	
Description	Pause the execution or continue execution
Input parameters	none
Return value	none
Remarks	none
Method Stop	
<i>void Stop()</i>	
Description	Stops execution
Input parameters	none
Return value	none
Remarks	none
Method JumpToTime	
<i>void JumpToTime(ulong time)</i>	
Description	Set the execution time in milliseconds
Input parameters	<ul style="list-style-type: none"> <i>ulong time</i> – the time at which jump the execution
Return value	none
Remarks	none
Property IsPlaying (read only)	

<i>bool IsPlaying</i>	
Description	indicates if the content is being played
DefaultValue	false
Property Duration (read only)	
<i>ulong Duration</i>	
Description	indicates duration in milliseconds
DefaultValue	0
Property CurrentTime (read only)	
<i>ulong CurrentTime</i>	
Description	indicates current execution time in milliseconds
DefaultValue	0
Property StartTime (read write)	
<i>ulong StartTime</i>	
Description	indicates the time in milliseconds where to start
DefaultValue	0
Property EndTime (read write)	
<i>ulong EndTime</i>	
Description	indicates the time in milliseconds where to end execution
DefaultValue	Duration

GENERIC COMMAND INTERFACE

This interface allows executing commands giving a command identifier. The command identifiers are:

Command ID	Value
"Load"	string with the URL
"OpenContent"	content position
"ContentCount"	
"BackgroundColor"	string
"ShowMetadata"	none
"ShowLicense"	none
"NeedLicense"	bool
"HaveLicense"	bool
"Zoom"	double
"ZoomIn"	double
"ZoomOut"	double
"AutoFit"	
"Fit"	string "w,h" (e.g. "100, 400")
"FullScreen"	bool
"Print"	none

"Play"	none
"Stop"	none
"Pause"	none
"IsPlaying"	bool
"CurrentTime"	ulong (read only)
"Duration"	ulong (read only)
"StartTime"	ulong
"EndTime"	ulong

Method <code>execCommand</code>	
<i>HRESULT execCommand(string cmdID, bool showUI, variant value, bool* ret)</i>	
Description	executes the command described in <code>cmdID</code> , with an optional argument contained in <code>value</code>
Input parameters	<ul style="list-style-type: none"> • <i>string cmdID</i> – command to be done • <i>bool showUI</i> – indicates if UI update is needed • <i>variant value</i> – the argument for the command • <i>bool* ret</i> – contains if the command has been executed or not
Return value	S_OK if ok
Remarks	None
Method <code>queryCommandEnabled</code>	
<i>HRESULT queryCommandEnabled(string cmdID, bool* ret)</i>	
Description	looks if the specified command can be successfully executed in the current context
Input parameters	<ul style="list-style-type: none"> • <i>string cmdID</i> – command to be checked • <i>bool* ret</i> – contains the result (true if the command is enabled)

Return value	S_OK if ok
Remarks	None
Method queryCommandIndeterm	
<i>HRESULT queryCommandIndeterm(string cmdID, bool* ret)</i>	
Description	looks if the specified command is in the indeterminate state
Input parameters	<ul style="list-style-type: none"> • <i>string cmdID</i> – command to be checked • <i>bool* ret</i> – contains the result (true if the command is in the indeterminate state)
Return value	S_OK if ok
Remarks	None
Method queryCommandStatus	
<i>HRESULT queryCommandStatus(string cmdID, bool* ret)</i>	
Description	indicates if the specified command has been executed on the object or not
Input parameters	<ul style="list-style-type: none"> • <i>string cmdID</i> – command to be checked • <i>bool* ret</i> – contains the result
Return value	S_OK if ok
Remarks	None
Method queryCommandSupported	
<i>HRESULT queryCommandSupported(string cmdID, bool* ret)</i>	
Description	looks if the specified command is supported
Input parameters	<ul style="list-style-type: none"> • <i>string cmdID</i> – command to be checked • <i>bool* ret</i> – contains the result (true if the command is supported)

Return value	S_OK if ok
Remarks	None
Method queryCommandValue	
<i>HRESULT queryCommandValue(string cmdID, variant* ret)</i>	
Description	returns the current value for a command
Input parameters	<ul style="list-style-type: none"> • <i>string cmdID</i> – command • <i>variant* value</i> – contains value
Return value	S_OK if ok
Remarks	None

EXAMPLES OF USAGE

USING IN A .NET APPLICATION

The following is an example of use of the activex to make a preview of an AXMEDIS object:

```

axactivex=new AXMEDISViewerCtrl();
axactivex.BackgroundColor="#ffffff";

//open the object downloading it from an URL
axactivex.Load("http://www.axmedis.org/axmedis.axm");

//show the metadata of the whole object
axactivex.ShowMetadata();

//look for a license and if not present acquire it

```

```
if(axactivex.NeedsLicense && !activex.HaveLicense)
    axactivex.AcquireLicense(licenseID);
else
    axactivex.ShowLicense();

// open all content elements inside the object and make a preview for 10s each
for(int i=1; i<=activex.ContentCount; i++)
{
    axactivex.OpenContent(i);

    //if currently opened content is image/video/document fit it to 100x100 preview
    if(activex.SupportVisualControl)
        axactivex.fit(100,100);

    //if currently opened content is audio/video preview it for 10s other wise wait for 10s
    if(activex.SupportTimeControl)
        axactivex.EndTime=10000; //10s preview
    else
        wait(10000); //wait 10s
}
```

USING IN A HTML PAGE

The AXMEDIS activex can be used inside any HTML page using the OBJECT tag (the embed tag is for the Mozilla plugin)

```
<OBJECT id="Object1"
    height="100%" width="100%" classid="clsid:B30B789D-2378-45BD-A1B5-AFC0B43919D3"
    name="axviewer" VIEWASTEXT>
<PARAM NAME="SRC" VALUE="http://www.axmedis.org/axmedis.mp21">
<PARAM NAME="BGCOLOR" VALUE="#99ccff">
<embed id="axviewer" type="application/axmedisplayer-plugin"
    width="100%" height="100%" viewHierarchy="false"> </embed>
</OBJECT>
```

The SRC parameter indicates the absolute URL to the .mp21/.axm file to load (it also opens the default resource like in OpenContent(0)) and the BGCOLOR parameter indicates the background color to use.

```

<script>
var axviewer;

if (document.embeds != null && document.embeds.length > 0) {

    //mozilla

    axviewer = document.getElementById('axviewer');

} else {

    // IE

    axviewer = document.all['axviewer'];

}

...

function load() {

    var filename = document.all["File1"].value;

    if(filename != null && filename!="") {

        axviewer.load(filename);

        if(axviewer.needsLicense)

        {

            if(axviewer.AXUID=="")

                alert("You need to be a registered user to use the content");

            else

                axviewer.certify();

        }

        content=1

        //if in the content there is a smil or html file disable the next/prev buttons

        var n=axviewer.ContentCount;

        if(n>0)

        {

            indexFound=false;

            for(i=1; i<=n; i++)

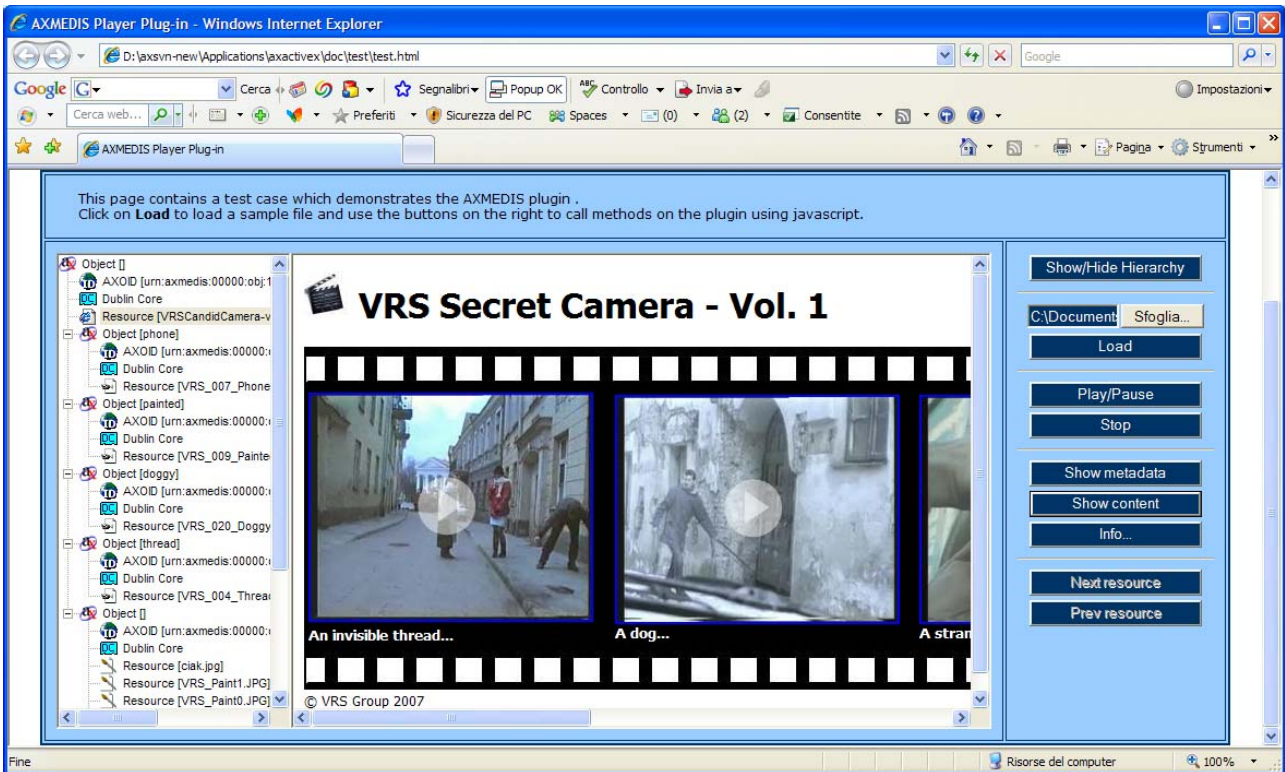
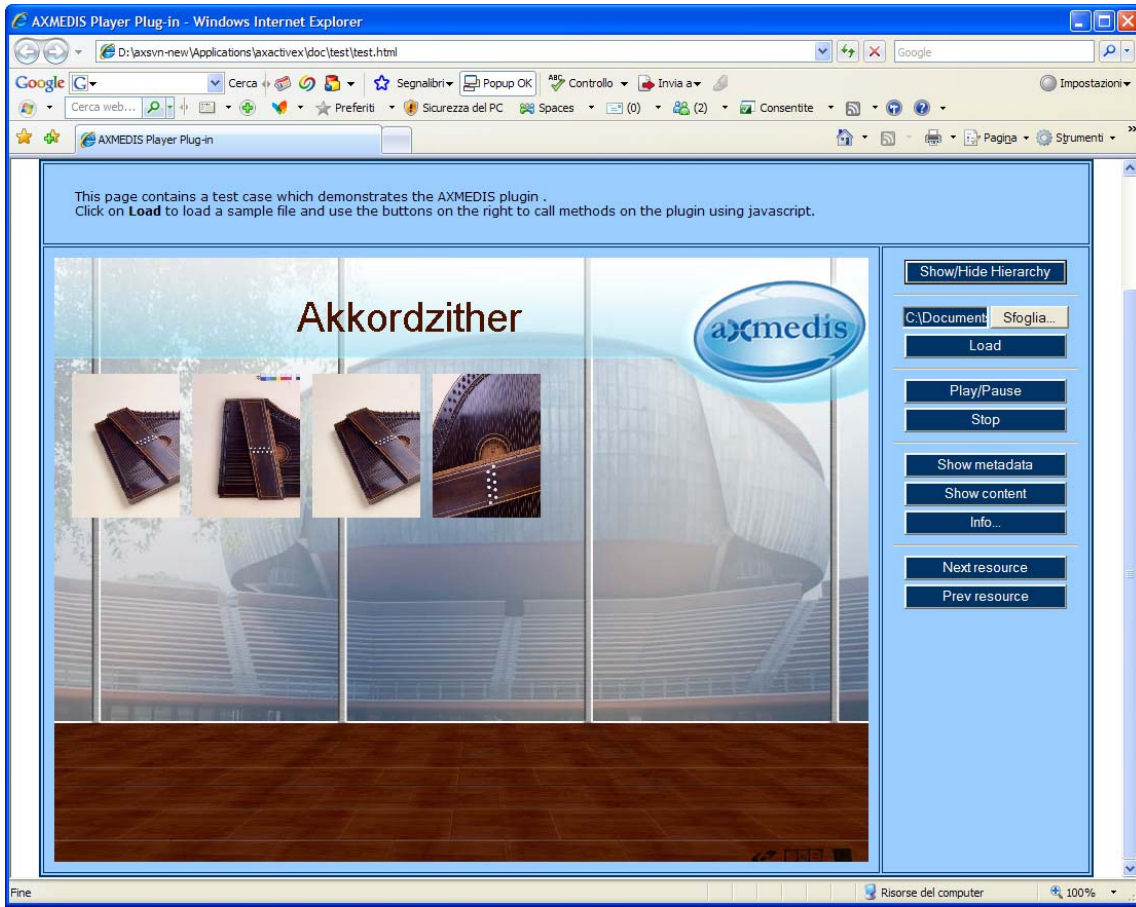
```



```
        if(axviewer.GetContentMimeType(i)=="application/smil" ||
           axviewer.GetContentMimeType(i)=="text/html")
            indexFound=true;

    next.disabled=indexFound;
    prev.disabled=indexFound;
    axviewer.openContent(0); //content=0 means open the default resource
}
}
}
...
function ShowInfo() {
    var n=axviewer.ContentCount;
    var msg = "AXOID: "+axviewer.AXOID+"\n"
    for(i=1; i<=n; i++)
        msg += "    "+axviewer.GetContentType(i)+" "+axviewer.GetContentMimeType(i)+"\n";

    alert(msg+"\nUser ID: "+axviewer.AXUID+"\nNeeds license: "+axviewer.needsLicense);
}
```



REFERENCES AND LINKS

AXMEDIS TUTORIALS

- General Tutorial and Overview (November 2007, Barcelona, Spain)
 - PPT: http://www.axmedis.org/documenti/view_documenti.php?doc_id=3653
 - Video on [part 1](#)
 - Video on [part 2](#)
 - Video on [part 3](#)
 - Video on [part 4](#)
 - Video on [part 5](#)
 - Video on [part 6](#)
- Content Production Tutorial (AXMEDIS 2007 Conference)
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3869
- Content Distribution Tutorial (AXMEDIS 2006 Conference)
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2666
- Content Processing Tutorial (AXMEDIS 2006 Conference)
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3868
- Workflow Tutorial (AXMEDIS 2006 Conference)
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2652
- [AXMEDIS general overview and content production tutorial, March 2008](#)

AXMEDIS TOOLS FOR FREE DOWNLOAD

- General download page: <http://www.axmedis.org/documenti/documenti.php>
- AXMEDIS content production tools include:
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3722
Free Download of AXMEDIS Content Production Tools (editor and GRID AXCP tools, PnP, DRM editor, etc.), all what you need to create AXMEDIS objects and process any kind of content automatically: SMIL, HTML, MPEG-21, content adptation,, fingerprint, crawling, indexing, cms, search, retrieval, control of P2P, etc. and much more. See documentation included
- AXMEDIS players for PC:
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3715
AXMEDIS PC player version 1.2 January 2008. Free download, AXMEDIS player, MPEG-21 player, cross media player, SMIL, HTML, MPEG-4 ,etc
- AXMEDIS multiskin player for PC:
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3716
AXMEDIS MultiSkin PC player version 1.2 january 2008. Free download, AXMEDIS player, MPEG-21 player, cross media player, SMIL, HTML, MPEG-4, with different skins available.
- AXMEDIS Active X Player for PC for Web Pages, AXMEDIS .Net Player, MPEG-21 player, SMIL, HTML, MPEG-4, cross media, more than 200 file formats:
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3717
- AXMEDIS player plus EUTELSAT OPENSKY client integrated
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3767
- AXEPTools: P2P client tool for establishing connection with the AXMEDIS P2P B2B network as Business User:
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3840
- AXMEDIA: P2P client tool for establishing connection with the AXMEDIS P2P B2B network as final users:
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3841
- AXMEDIS PDA player for Windows Mobiles 5 and 6:
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3842
It is capable to play AXMEDIS objects based on SMIL, HTML, video, audio, MPEG-4 files, etc. AXMEDIS PDA player for AXMEDIS MPEG-21 content including resources with presentations layer based on MPEG-4, HTML and SMIL
Unzip the file, copy the CAB file and execute it on the PDA
- Collection of Objects for AXMEDIS player for PDA (Jan 2008):
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3748

AXMEDIS TECHNICAL NOTES

- [AXMEDIS Content Model and Tools, Authoring Tools, Players for MPEG-21, PC, PDA, Mobile, STB, PVR, HDR, etc. \(in English\)](#)
- [AXMEDIS Content Model and Tools, Authoring Tools, Players for MPEG-21, PC, PDA, Mobile, STB, PVR, HDR, etc. \(in Italian\)](#)
- [AXMEDIS Content Processing GRID all features listed \(in English\)](#)
- [AXMEDIS Content Processing GRID Tutte le caratteristiche descritte \(in Italian\)](#)
- [AXMEDIS P2P Controlled network all features listed with cases \(in English\)](#)
- [AXMEDIS P2P Controlled network tutte le caratteristiche, con alcune casistiche \(in Italian\)](#)
- [AXMEDIS DRM, MPEG-21 DRM, Interoperable DRM \(in English\)](#)
- [AXMEDIS DRM, MPEG-21 DRM, DRM interoperabile \(in Italian\)](#)
- [Technical note on how to integrate the AXMEDIS DRM into an e-commerce portal and content distribution solution for content on demand and subscription](#)
- [Come integrare AXMEDIS DRM in un portale per la distribuzione di contenuti digitali \(in Italian\)](#)
- [AXMEDIS Show Case, AXMEDIS Mpeg-21 Content distribution via datellite dta broadcast, EUTELSAT OPENSky](#)
- [Technical note on the ELION AXMEDIS content on demand trial and solution, how to exploit AXMEDIS framework to create an cross media content distribution with DRM and automated production, and connection with P2P](#)
- [Technical note on the TEO IPTV AXMEDIS trial and solution, how to exploit AXMEDIS framework to create an IPTV with DRM and automated production, and connection with P2P.](#)

AXMEDIS SOLUTIONS

- Content Management Automation, AXCP:
http://www.axmedis.org/com/index.php?option=com_content&task=view&id=94&Itemid=33
- AXMEDIS controlled P2P:
http://www.axmedis.org/com/index.php?option=com_content&task=view&id=97&Itemid=34
- AXMEDIS production tools and players:
http://www.axmedis.org/com/index.php?option=com_content&task=view&id=101&Itemid=35
- AXMEDIS DRM, MPEG-21 DRM:
http://www.axmedis.org/com/index.php?option=com_content&task=view&id=99&Itemid=36
- FAQs: http://www.axmedis.org/com/index.php?option=com_content&task=blogcategory&id=7&Itemid=73

AXMEDIS SHOWCASES

- [Content Distribution to Licensed Domains via DVB-T and P2P \(BBC\)](#)
- [Protected Video on Demand Distribution via P2P toward PC \(Tiscali\)](#)
- [Protected Video on Demand \(VOD\) Distribution to PC \(ELION\)](#)
- [Content Distribution via Satellite Data Broadcast \(DVB-S\) to PC and STB \(EUTELSAT\)](#)
- [Content Distribution to Kiosks \(ILABS\)](#)
- [Video on Demand \(VOD\) Distribution to Set Top Box \(TEO\)](#)
- [Content Posting Tool, for Final User content production/publication/DRM \(SIAE\)](#)
- [Variazioni: Enrichment of Cultural Content](#)
- [AXMEDIS Content and Tools: Automatic Production](#)
- [AXMEDIS Controlled P2P Network](#)

AXMEDIS FRAMEWORK SPECIFICATION

- AXMEDIS Framework [General aspects, Editor and Model](#)
http://www.AXMEDIS.org/documenti/view_documento.php?doc_id=1891
- AXMEDIS Command Manager http://www.AXMEDIS.org/documenti/view_documento.php?doc_id=2686

- AXMEDIS Object Manager and Protection Processor:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1972
- AXMEDIS Editor and Viewers: http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2213
- AXMEDIS External Editors, Viewers and Players:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2211
- AXMEDIS Content Processing Area:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1958
- AXMEDIS External Processing Algorithms:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2017
- AXMEDIS CMS Crawling capabilities:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1907
- AXMEDIS Database and query support:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1932
- AXMEDIS AXEPTool and AXMedia Tools:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2718
- AXMEDIS Programme and Publication Tools:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1885
- AXMEDIS Workflow Tools:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1883
- AXMEDIS Certifier and Supervisor and networks of AXCS
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1952
- AXMEDIS Protection Support
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1882
- AXMEDIS Accounting and Reporting :
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1887
- [Definitions Terms tables links http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1388](http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1388)

AXMEDIS reports on basic enabling technologies

- Content Model and Managing, MPEG-21, authoring, etc.
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2324
- Content indexing and querying:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2436
- Content processing, Composition and Formatting
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2374
- Content sharing and Production on P2P:
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2454
- Content Protection and Supervision http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2371
- Content Distribution via Internet
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2451
- Content Distribution via Mobile
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2442
- Content Distribution via Satellite data broadcast
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2313
- Usability issues
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2339

- AXMEDIS vs [DMP MPEG21 Analysis](http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1063) http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1063
- AXMEDIS Framework Infrastructure, guidelines and some tools http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1391
- AXMEDIS Framework Validation and integration http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2445

Basic knowledge reports

- User requirements http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1712
- Use Cases http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1824
- Test Case http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2023

Content Modeling and Test Cases

- [Content Aspect Specification](http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1389) http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1389
- [Content Aspect Specification Appendix](http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1670) http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1670
- [Content for Test Cases and Validation](http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1393) http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1393
- [Content Selection Guidelines](http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1390) http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1390
- [Multilingual Guidelines and Technical Solutions](http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1427) http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1427
- [AXMEDIS Editorial Format Guidelines and basic examples](http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1394) http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1394

AXMEDIS FRAMEWORK DEMONSTRATORS, CASES, TRIALS, FOR DISTRIBUTION ETC.

- requirements and use cases of AXMEDIS ELTEO of the content distribution for DVB-T to STB of Telecom Lithuania, and content distribution of Telecom Estonia http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2978
- requirements and use cases of the 4HOME take up, demonstrators of BBC, TI, SDAE, including domains, AXMEDIS for broadcasting, and OMA integration and distribution http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2976
- Specification final version of Take up AXMEDIS ELTEO for Video on demand, STB, IPTV solutions based on AXMEDIS technology: http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=3096
- Integrated CMS integration aspects: http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2853
- Integrated prototype: automated content production and formatting: http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2939
- Integrated Distribution on demand via Internet http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2951
- Integrated distribution via satellite data broadcast: http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2954
- Integrated distribution towards mobiles: http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2945
- Integrated Distribution towards PDA via Kiosks: http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2944
- Content Posting Portal, Content Posting for Final User publication, SIAE Trial presentation:
 - http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2922

- http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2923
- VARIAZIONI project portal: <http://www.variazioniproject.org/>

BROCHURES AND PRESS CUTTING (A PART)

- AXMEDIS Project Brochure
http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2712
- Annual Public Report (2007): http://www.axmedis.org/documenti/view_documenti.php?doc_id=3621
- Annual Public Report (2006) http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=2471
- Annual Public Report (2005) http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1439
- AXMEDIS Project Synopsis http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1668
- Digital Media in Italy presentation http://www.AXMEDIS.org/documenti/view_documenti.php?doc_id=1669

OTHER REFERENCES

- ISO/IEC, ISO/IEC FDIS 21000-5 - Rights Expression Language. ISO/IEC JTC1/SC 29/WG 11/N5839. July 2003.
- ISO/IEC, ISO/IEC FDIS 21000-6 - Rights Data Dictionary. ISO/IEC JTC 1/SC 29/WG 11/N5842. July 2003.
- Iannella, R.: Open Digital Right Language (ODRL) Version 1.1. <http://odrl.net/1.1/ODRL-11.pdf> . August 2002.
- Open Mobile Alliance (OMA), <http://www.openmobilealliance.com/>
- OMA DRM Rights Expression Language version 2 (OMA DRM REL v.2), <http://www.openmobilealliance.com/>
- ISO/IEC, Study of ISO/IEC FCD 21000-4 IPMP Components. ISO/IEC JTC 1/SC 29/WG 11/N7426. July 2005.