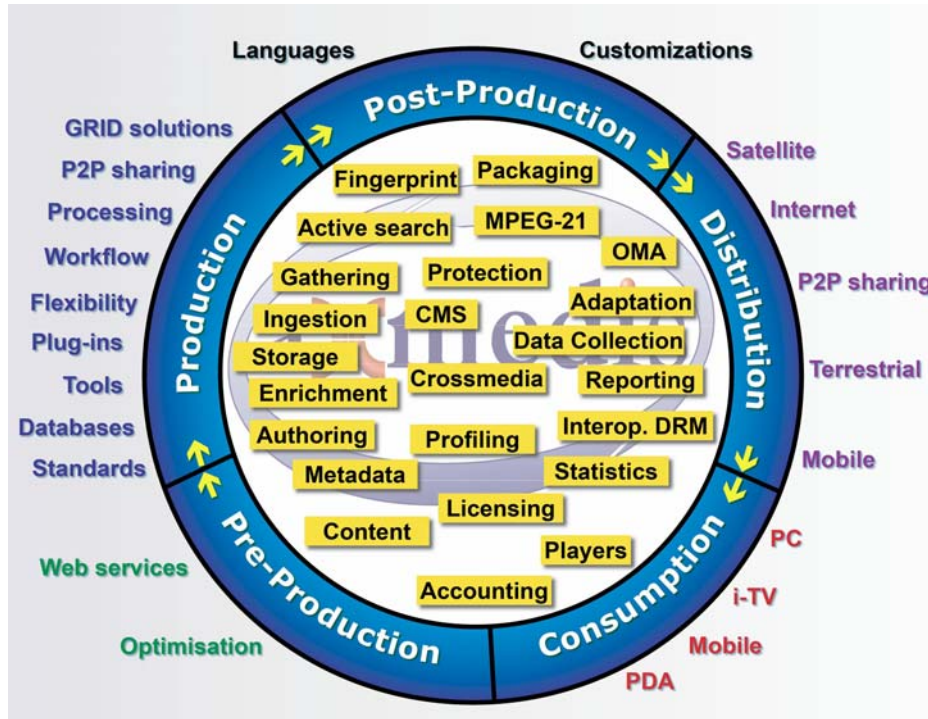




AXMEDIS Framework Catalogue

version 2.3

The AXMEDIS framework is an open solution capable to cover in an integrated manner content management of pre- and post-production, distribution and players.



AXMEDIS allows setting up automating solutions with scalable tools for managing single and multiple:

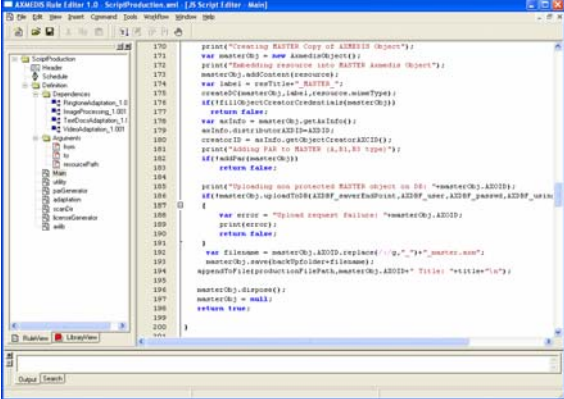
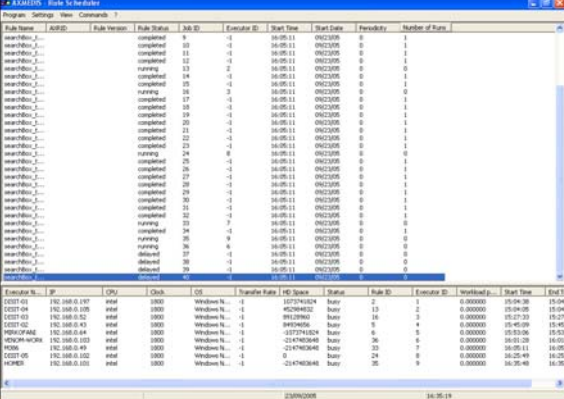
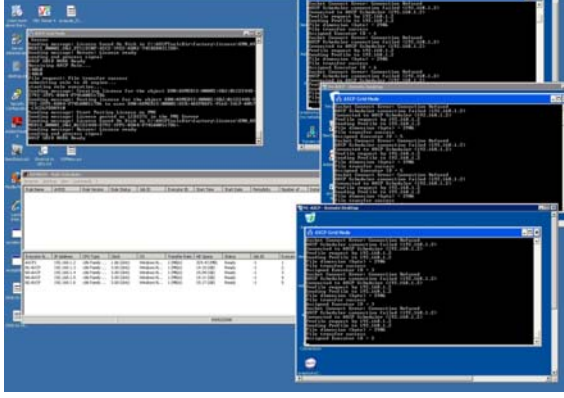
- distribution channels: VOD, IPTV, WEBTV, DVB-T, web, P2P, FTP, WEBDAV, WebServices, etc.
- content formats: any video, any image, any document, any audio, SMIL, HTML, MPEG-21, MXF, NewsML, XML, XSLT, etc.;
- final user devices: PC, STB/PVR, i-TV, Kiosks, PDA and mobiles;
- interoperable DRM (digital rights management) models: MPEG-21 and OMA;
- business models on the same and multiple distribution channels and content: pay per play, subscription, counting, renting, billing, etc., for B2B and B2C;
- services for content production and/or distribution on demands;
- content factories and processing areas via workflows (OpenFlow and BizTalk);
- content management systems, CMSs, and/or archives.

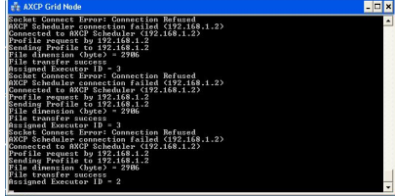
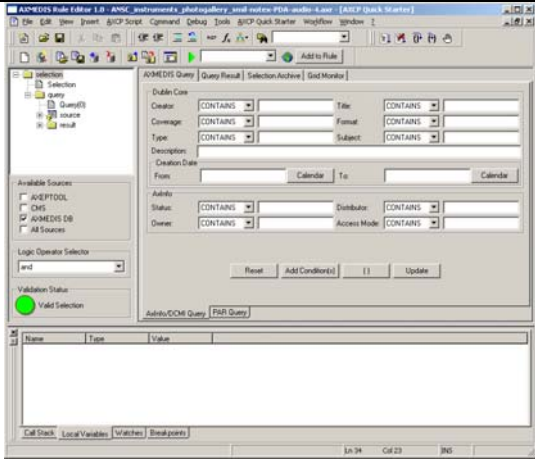
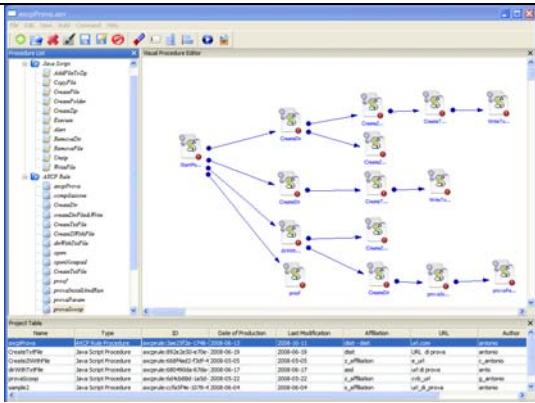
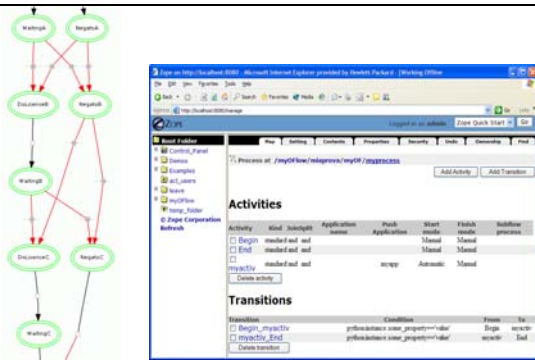
AXMEDIS has created a set of integrated tools and solutions in the following areas that can be also easily integrated in other architectures and solutions.

- **AXCP**: production, protection and distribution as stated above and in more details into the technical note: http://www.axmedis.org/documenti/view_documenti.php?doc_id=3624
- **AXDRM**, DRM servers and licensing tools for DRM, detection of attacks, black list management, collection of actions logs containing traces about the rights exploitation, tools for administrative management, etc. http://www.axmedis.org/documenti/view_documenti.php?doc_id=3616
- **AXMEDIS Factory: AXMEDIS Editor for MPEG-21 and AXMEDIS authoring** (SMIL, HTML, MPEG-4, or any other kinds of digital resources), DRM, licensing, protection, packaging, workflow, playing, etc. AXMEDIS authoring on Windows. http://www.axmedis.org/documenti/view_documenti.php?doc_id=3634
- **AXMEDIS Players** running on: MS Windows, Mac OS X, Linux, Windows Mobile 5, and java mobiles, are available for PC, STB/PVR/HDR, Media Centers, PDA, and mobiles, acquisition of user behaviour. Their GUI and functionalities can be customized http://www.axmedis.org/documenti/view_documenti.php?doc_id=3634
- **AXP2P Controlled Network**, for content distribution via P2P. It utilizes BitTorrent Technology with query support and cataloguing servers, for protected or non protected content. It has capabilities of

automating content publication, controlling P2P network, and extracting statistical data and reports. The AXMEDIS P2P solution allows to control the network by means of control nodes that can be geographically distributed: http://www.axmedis.org/documenti/view_documenti.php?doc_id=3612



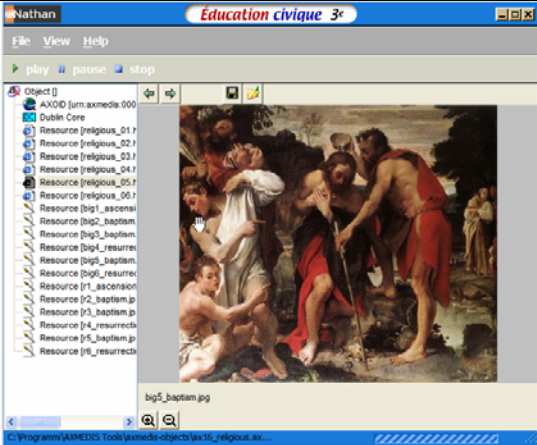
- **Distribution:** supporting tools for content distribution, integrated into the AXCP (posting on satellite carousel, Web Services, FTP sites, etc.) and into the AXMEDIS show cases for VOD, RTSP, streaming, etc., see <http://www.axmedis.org>
- **Content ingestion and COPOP,** to involve your final users, to collect their content and metadata, to automatically transcoding, packing and redistributing user content for social networking and content enrichment. http://www.axmedis.org/com/index.php?option=com_content&task=view&id=79&Itemid=50
- **Cross Media Finder:** an integrated portal for demonstrating AXMEDIS content and distribution: <http://variazioni.axmedis.org:8080/CrossMediaFinder/>

Area	Tool	Snapshot	Short description
AXCP	AXCP Rule Editor		<p>Editing and debugging AXCP Rules, put in execution AXCP Rules, posting them on one or more AXCP schedulers.</p> <p>AXCP Rules are XML extensions of Mozilla JavaScript with more than 200 new function for content management and processing.</p>
AXCP	AXCP Scheduler		<p>AXCP Rule Scheduler to manage the GRID comprised of a set of AXCP nodes, scheduling processes, etc. The AXCP Rules can be invoked via WebServices, Workflow, QuickStart, PHP, etc.</p>
AXCP	AXCP Node		<p>Executing AXCP Rules on windows based server. Connection with AXCP Scheduler</p>





Area	Tool	Snapshot	Short description
AXCP	AXCP Plug in Collection		A large set of AXCP plug ins, see for details the AXCP Technical note #3901
AXCP	AXCP Rules collection		A large set of AXCP rules, see for details the AXCP manual and AXMEDIS portal
AXCP	AXCP Stand Alone Node		Stand alone AXCP rule node that can be invoked by command line. MS Windows application.
AXCP	AXCP Quick Starter		Technical tool to start AXCP rules actualizing parameters of the rules, making queries, monitoring activities, etc.
AXCP	AXCP Visual Designer		Visual designer for programming AXCP Rules. The Designer can be used to create visually the rules that can be put on execution on the AXCP Scheduler and GRID.
AXCP	OpenFlow Integration		Integration of Open Flow with AXMEDIS CP tools. The Open Flow can be used to control the activities on AXCP Editor, AXCP Scheduler, AXMEDIS Editor, etc.




Area	Tool	Snapshot	Short description
AXCP	BizTalk Integration		Integration of BizTalk work Flow manager with AXMEDIS CP tools. The BizTalk can be used to control the activities on AXCP Editor, AXCP Scheduler, AXMEDIS Editor, etc.
AXCP	Formatter		Automated formatter of cross media content based on profiling
AXDRM	PMS, AXMEDIS Protection Manager Support Server		License Server, providing grants and licenses. MPEG-21 REL processing. It also manages the black list of licenses
AXDRM	PMS Domain, AXMEDIS Protection Manager Support for Domains Server		License Server, providing grants and licenses. MPEG-21 REL processing. It also manages the black list of licenses. It also works for managing a domain on which the AXMEDIS player can be registered and the licenses made.
AXDRM	DUDManager, Domain User Registration tools		Registration of AXMEDIS tools in the Domain and its management

Area	Tool	Snapshot	Short description
AXDRM	AXMEDIS DRM License maker wizard		A wizard tool to create licenses for AXMEDIS DRMed content.
AXDRM	AXMEDIS DRM Creator License Maker Wizard		A wizard tool for content creators and publishers to create licenses for distributors of AXMEDIS DRMed content. At the same time a Wizard for the Distributor is created as well to facilitate their testing and operative starting.
AXMEDIS Factory	AXMEDIS Editor		AXMEDIS Editor for authoring AXMEDIS and MPEG-21, SMIL, to protect content, etc.
AXMEDIS Factory	Metadata mapper in the AXMEDIS Editor		A visual tool for visual creation of XSLT maps for converting metadata. From XML to AXMEDIS, from XML to XML, etc.


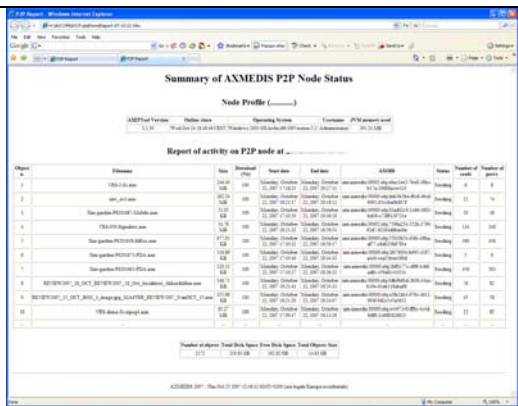
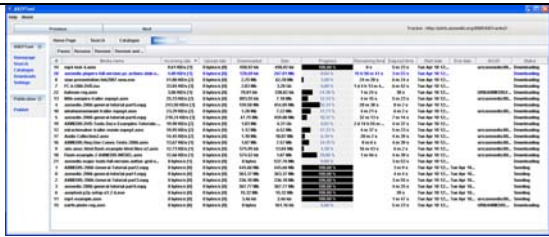
Area	Tool	Snapshot	Short description
AXMEDIS Factory	AXMEDIS Query Support and GUI		<p>AXMEDIS database and query support can be accessed via GUI and/or via Webservice and via AXMEDIS Editor, AXMEDIS quick Start, etc. the view on the left is only a web based.</p>
AXMEDIS players	AXMEDIS player		<p>AXMEDIS PC player, Full capabilities with AXMEDIS Model including a version with full JS capabilities, AXmethods, full intelligence.</p> <p>Support for interactive elements in SMIL, HTML, FLASH.</p> <p>Full support of MPEG-21 DI and of MPEG-21 REL DRM.</p>
AXMEDIS players	AXMEDIS Bordans and Nathan player		<p>AXMEDIS player customized for Bordans and Nathan. AXMEDIS PC player, Full capabilities with</p> <p>AXMEDIS Model. Support for interactive elements in SMIL, HTML, FLASH.</p> <p>Full support of MPEG-21 DI and of MPEG-21 REL DRM.</p>

Area	Tool	Snapshot	Short description
AXMEDIS players	AX Multiskin Player		<p>AXMEDIS player for PC, with multiple skin. Examples on the left. The Player has full capabilities with respect to all the other AXMEDIS players.</p> <p>AXMEDIS PC player, Full capabilities with AXMEDIS Model.</p> <p>Support for interactive elements in SMIL, HTML, FLASH.</p> <p>Full support of MPEG-21 DI and of MPEG-21 REL DRM.</p> <p>The GUI skin can be customized in a very easy manner, 1/2 day of work for your designer.</p>
AXMEDIS players	Continue from above AX Multiskin Player		<p>Continue from above</p>

Area	Tool	Snapshot	Short description
AXMEDIS players	AXMEDIS players Annotation Support		Annotation support for AXMEDIS players. Annotation of images, video and audio
AXMEDIS players	AX PDA player		AXMEDIS player for Windows Mobile 5 and 6. Support for AXMEDIS model and SMIL, HTML, images, MPEG-4, animations, document, video, etc. Full support of MPEG-21 DI and of MPEG-21 REL DRM.
AXMEDIS players	AX Mobile Player		AXMEDIS java player for Sony Ericsson, and Nokia. Support for AXMEDIS model and SMIL interactivity, support for images, text, video and audio files. Full support of MPEG-21 DRM and as CAS. -- DRM and progressive download on Sony Ericsson -- CAS and streaming RTSP on Nokia.
AXMEDIS players	AXMEDIS Active X player		AXMEDIS Active X for internet explore PC player, Full capabilities with AXMEDIS Model. Support for interactive elements in SMIL, HTML, FLASH. Full support of MPEG-21 DI and of MPEG-21 REL DRM. AXMEDIS Active X player can be used for the rendering. The Video and audio can be rendered in progressive download. Support a large range of formats. The AXMEDIS Active X Player supports interactivity.

Area	Tool	Snapshot	Short description
AXMEDIS players	AXMEDIS Mozilla Firefox Plug In		<p>AXMEDIS plug in for internet browser Firefox PC player, Full capabilities with AXMEDIS Model.</p> <p>Support for interactive elements in SMIL, HTML, FLASH.</p> <p>Full support of MPEG-21 DI and of MPEG-21 REL DRM.</p> <p>This AXMEDIS player can be used for the rendering. The Video and audio can be rendered in progressive download. Support a large range of formats. This AXMEDIS Player supports interactivity.</p>
AXMEDIS players	AX STB Motorola		<p>AXMEDIS STB player based on Kreatek Motorola, Only VOD and streaming.</p> <p>Full support of MPEG-21 DI and of MPEG-21 REL DRM.</p>
AXMEDIS players	AX STB MBI		<p>AXMEDIS STB player, with capabilities of DVB-T, DVB-S, ADSL. Full interactivity of AXMEDIS model. AXMEDIS Cross Media content with SMIL and/or HTML.</p> <p>Full support of MPEG-21 DI and of MPEG-21 REL DRM.</p>

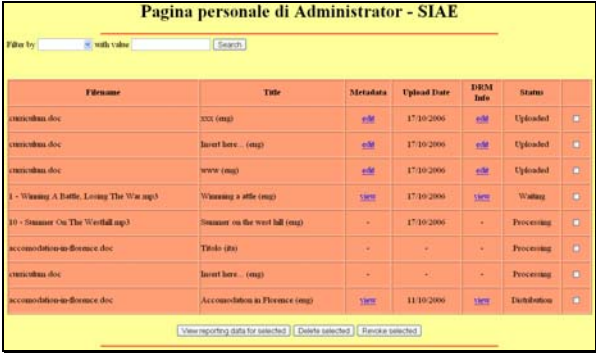
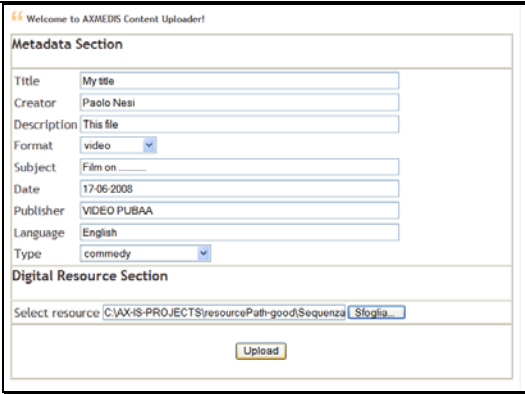
Area	Tool	Snapshot	Short description																												
AXMEDIS players and AXDRM	AXOM support	<p>AXMEDIS Object Manager</p> <p>Execution of commands</p> <ul style="list-style-type: none"> add, delete, ... change resource edit metadata save, upload on DB <p>Data access Resource streaming</p> <p>Object → Metadata → Resource → stream</p> <p>Object → clone → Object</p> <p>Object → load → Protected Object</p> <p>Protected Object → save → Object</p> <p>AXOM</p> <ul style="list-style-type: none"> Trusted manipulation DRM enforcement On-the-fly un-protection <p>prot. info</p> <p>authorization</p>	<p>The AXOM is a module that can be taken from STB builders and/or from any Player builder to enforce the AXMEDIS DRM. Available for MS Windows, Linux, Windows Mobile 5 and 6 and MAC.</p> <p>Full support of MPEG-21 DI and of MPEG-21 REL DRM.</p>																												
AXMEDIS players	AX .NET player	<p>AXMEDIS Player</p> <p>File</p> <p>Chinatown, Singapore</p> <p>scale: x5.613</p> <p>1/1 Hierarchy Play/Pause Stop</p>	<p>AXMEDIS PC player based on AXMEDIS Active X and developed in .NET, Full capabilities with AXMEDIS Model.</p> <p>Support for interactive elements in SMIL, HTML, FLASH, full support of MPEG-21 DRM. Full support for</p>																												
AXMEDIS players	AX4HOME Recorder	<p>Recording Station</p> <table border="1"> <thead> <tr> <th>Programme</th> <th>Status</th> <th>Duration</th> <th>When</th> </tr> </thead> <tbody> <tr> <td>The Weekend Link</td> <td>Recording</td> <td>45 mins</td> <td>17:15 - Wed</td> </tr> <tr> <td>Evacuation</td> <td>Waiting</td> <td>30 mins</td> <td>14:15 - Wed</td> </tr> <tr> <td>Working Lunch</td> <td>Waiting</td> <td>30 mins</td> <td>12:30 - Wed</td> </tr> <tr> <td>Sally's Game Show</td> <td>Ready to watch!</td> <td>30 mins</td> <td>15:40 - Fri 1</td> </tr> <tr> <td>BBC News</td> <td>Ready to watch!</td> <td>30 mins</td> <td>13:00 - Fri 1</td> </tr> <tr> <td>Talk a Bow</td> <td>Ready to watch!</td> <td>5 mins</td> <td>15:25 - Fri 1</td> </tr> </tbody> </table> <p>The Recorder application presents a list of recordings and their status</p> <p>AXMEDIS Player</p> <p>BBC Example Trailer</p> <p>MENU</p>	Programme	Status	Duration	When	The Weekend Link	Recording	45 mins	17:15 - Wed	Evacuation	Waiting	30 mins	14:15 - Wed	Working Lunch	Waiting	30 mins	12:30 - Wed	Sally's Game Show	Ready to watch!	30 mins	15:40 - Fri 1	BBC News	Ready to watch!	30 mins	13:00 - Fri 1	Talk a Bow	Ready to watch!	5 mins	15:25 - Fri 1	<p>AX4HOME video recorder. It integrates the recorded free on air transmission from DVB-T with additional content coming from AXP2P to create a more valuable AXMEDIS objects with video and additional interactive content</p>
Programme	Status	Duration	When																												
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Area	Tool	Snapshot	Short description
AXP2P	AXEPTool		<p>AXMEDIS P2P tool that play the role of Supernode. Based on BitTorrent Technology.</p> <p>It can be controlled and monitored by AXCP Rules, to this end it exposed specific web services.</p> <p>It is suitable for B2B distribution via P2P.</p> <p>It also provides statistical information on client side that can be recollectored from the control nodes.</p>
AXP2P	AXP2P Control		<p>System of Control for AXP2P network. It is based on AXCP solution and rules. A single point of control AXCP can control several AXEPTools spread in Internet.</p> <p>It is suitable for B2B and B2C distribution via P2P.</p>
AXP2P	AXMEDIA		<p>A simplified version of the AXMEDIS P2P tool that can be used by final users. It is based on BitTorrent Technology. It cannot be controlled.</p>

Area	Tool	Snapshot	Short description
AXP2P	AXTracker		<p>AXMEDIS P2P tracker. It is substantially a BitTorrent tracker that can be scaled up to manage large P2P networks. It is also endowed of a Catalogue. It can be integrated with the AXMEDIS Query Support and with the AXCP to control its activities. AXTracker also provide statistical information.</p>
Distribution	AXPnP, Programme and Publication		<p>AXMEDIS programme and Publication. A Tool for scheduling and actuating the publication of AXMEDIS content towards distributors and front end of distributions such as Satellite Carousels, etc.</p>
Distribution	OpenSky receiver		<p>OpenSky receiver for satellite distribution in Push integrated with the AXMEDIS player and capable of receiving AXMEDIS content. Frequency: 11,4280GHz SymbolRate: 30000kSymb/s Polarization: Horizontal Viterbi Rate: 5/6 PID: 2411</p>

Area	Tool	Snapshot	Short description
Distribution	Kiosk		<p>AXMEDIS Kiosk manager and distributor. User access and administration.</p>
Distribution	VOD, video on demand manager		<p>VOD, video on demand Content manager to distribute Video on the basis of the reception of AXMEDIS content on the STB Motorola. Distribution of content in streaming.</p>
Distribution	WEB Distribution Portal		<p>WEB portal for content distribution in the B2B area. Presenting prepaid content, distribution of content, profiling of users, metadata profile, etc.</p>

Area	Tool	Snapshot	Short description
Distribution	Cross Media Finder Portal		<p>A Portal to distribute Cross Media content, AXMEDIS model and to allow the users to provide the content. Fully automated, support for AX-DRM, MPEG-21.</p> <p>It can be integrated with AXDRM and with AXP2P solutions.</p> <p>It also may include the AXMEDIS Active X player for the rendering. The Video and audio can be rendered in progressive download. Support a large range of formats. The AXMEDIS Active X Player support interactivity.</p>
Content Ingestion	COPOP, content posting portal client		<p>COPOP client to ingest high quantity of content from final users, authors, editor, publishers. This tool has high reliability (in the case of connection broken restart from the last blocks), batch processing, status save, SSL connection, java based, full support of DC metadata, any languages, ISRC, ISAN, etc. etc. Also usable for User Generated Content, UCG</p>

Area	Tool	Snapshot	Short description
Content Ingestion	COPOP Server		COPOP server to collect content from the COPOP client, collect the DRM model, provide reporting to the content providers about the rights usage, etc.
Content Ingestion	Uploader		Simple WEB based interface to collect (i) files and metadata from users, or (ii) ready to be used AXMEDIS Object. The Uploader automatically invoke the AXCP Rule for processing the content and posting content on the database, distribute on P2P, via mobile, etc.

AXMEDIS Tools for download

In the following, the links to download the most important AXMEDIS players are reported. It is also possible from the AXMEDIS portal to download demonstration AXMEDIS tools and content. Custom and optimized versions can be produced on demand:

- **AXMEDIS PC players:**
 - AXMEDIS stand alone PC player;
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3767
 - AXMEDIS Skin based PC player;
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3716
 - AXMEDIS Active X, for usage into HTML pages and simple VB and/or .NET applications and PC players. .NET Player; http://www.axmedis.org/documenti/view_documenti.php?doc_id=3717
- **Mobile player:**
 - AXMEDIS mobile player for Windows Mobile 5 and 6 player, supporting: SMIL, HTML, MPEG-4, video, audio, documents, images, etc.;;
http://www.axmedis.org/documenti/view_documenti.php?doc_id=3842
 - AXMEDIS java phone Mobile p[layer
http://www.axmedis.org/com/index.php?option=com_content&task=view&id=172&Itemid=91
- **Content production tools** of AXMEDIS from:
http://www.axmedis.org/com/index.php?option=com_content&task=view&id=83&Itemid=55

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