

# XML as the Articulation between Information Retrieval and Multimedia in a Musical Heritage Dissemination

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## ABSTRACT

The Cité de la musique in Paris has recently opened a new media Library. One of the Library's assignments is the dissemination of the Cité de la musique's collection of recorded concerts. This paper presents the concert's description model implemented into the MARC Catalogue and emphasizes the central position in the library information system architecture of automatically generated XML representations of each concert.

## Categories and Subject Descriptors

H.5.1 [Information Systems]: Information Interfaces and Presentation – *Multimedia Information Systems*.

**General Terms:** Design, Experimentation, Standardization

**Keywords:** Performing Arts Works Data Model, Music Retrieval, Sound Archive.

## THE CONCERT DESCRIPTION MODEL

Since its opening in 1995, the Cité de la musique has been recording most of its concerts (each year, 150 audio recording and 10 videos). Today, 2/3 of this heritage is published in full length version on the Library's Intranet and Extranet and through excerpts on the Internet, representing about 5000 musical works. The system allows music lovers to retrieve performed musical works or even parts of works (symphony movements, opera arias). Each concert is described using a 3 level hierarchical structure (Fig.1) When cataloguing a concert, the librarian creates a record called the "mother record", then a "daughter record" for each work contained in the concert, then a "step-daughter record" for each part of work.

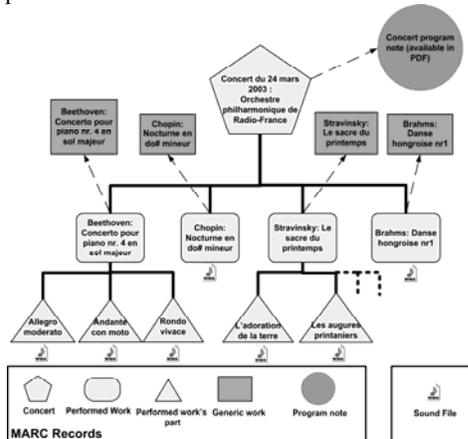


Figure 1. Description of a concert's audio recording with a 3-levels MARC record hierarchy.

Furthermore each performed work is linked to a generic work record containing general information about the work itself. Thus, displaying the generic work record gives all the available performances of the work. This model is inspired by FRBR (Functional Requirements for Bibliographic Records) but is much simpler.

## XML REPRESENTATIONS

A batch automatically exports the last changed MARC Records of the concerts from the library software to XML files, based on the MARCXML DTD. Those files are then used to feed many modules of the Information System, such as the generation of PDF files that allows for printing CD and DVD booklets using XSLFO, hierarchical lists of terms to browse the concert collection by composer, performer, season or genre using AJAX requests, an RSS feed with short descriptions of the recently published archives (approx. 1 each day), and finally various OAI repositories with Dublin Core and MODS files. In addition, parts of the XML extracts are imported into an XML database which contains all the descriptive, technical and legal metadata necessary to generate on demand SMILE playlists used by the streaming server, along with the DHTML player itself.

When listening to or watching a concert through the portal media player, users have at their disposal a visual representation of the concert's hierarchical description (see fig.2). To each work and part of work corresponds a clickable area. Activating one of these areas starts up the corresponding musical sequence. Additional buttons display the detailed MARC record of the archive and the PDF file of the program note.



Figure 2. Media player interface

## CONCLUSION

Thanks to this architecture, the library catalogue is the unique source of descriptive metadata, used everywhere else in the information system. The library portal offers a very efficient and user-friendly articulation between the information retrieval part (through search interfaces, RSS feeds or hierarchical lists) and the multimedia part (the listening of the concert itself).

See <http://mediatheque.cite-musique.fr> for more information.