Minutes for the 10th meeting of the Working Group for XML Musical Application

IEEE 1599

WG_1599 – Working Group for XML Musical Application

A. Meeting information

Date and time: December 6, 2022 – 17.00 CEST (UTC+2)
Location: in-presence meeting at the Laboratory of Music Informatics, University of Milan and virtual meeting via Google Meet
Officer presiding: Goffredo Haus, WG chair
Co-officer: Luca A. Ludovico, WG vice-chair
Secretary: Adriano Baratè

B. Meeting participants

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C. Call to order, Chair's remarks

The meeting begins at 17.00 CEST.
Goffredo Haus presides the meeting in his role of WG chair.
Goffredo Haus and other WG members welcome the invited people.

WG members are informed of the availability of a document titled "Policies and Procedures for WG_1599 - Working Group for XML Musical Application" in the IEEE 1599 website, at the following URL:
https://ieee1599.lim.di.unimi.it/documentation/policies_and_procedures/policies_and_procedures.pdf

D. Approval of minutes of the previous meeting

The minutes of the previous meeting are approved by all participants.

E. Approval of agenda

The WG vice-chair, Luca A. Ludovico, introduced the agenda and approved by participants.
The voting / non-voting status of the members is updated.

F. Technical topics

The first topic, presented by Luca A. Ludovico, is a proposal for a distribution format specially conceived for IEEE 1599 documents. The research involved Sub-WG-1, 4, and 5.

The problem to address is that an IEEE 1599 file requires a potentially huge number of potentially big-sized multimedia files (images for the Notational layer, audio tracks and video footage for the Audio layer, etc.). External files could (should?) be distributed together with the XML. They can have an absolute local path, a relative local path, or present an URL. The idea is to standardize a way to embed all the files required to experience an IEEE1599-encoded piece into a single compressed archive. The resulting archive should strictly contain the XML file plus all the resources that – in the other case – would be only locally available. The archive could optionally contain also publicly-available resources, namely those files reachable through their URLs.

Concerning the format, we propose to take benefit from already established and commonly accepted lossless formats, such as ZIP or TAR archives.

The technical proposal from Sub-WGs can be summarized as follows. The compressed archive will present:

- The IEEE 1599 document (XML file) in its root directory;
- As many subdirectories as the number of layers, with the same name as the corresponding layer. The supposed new syntax for layers supports this approach: <layer name='unique_layer_name' … > … </layer>
- In the case of relative paths, they could be preserved within the subdirectory.
- In the case of absolute paths that "cross" the local position of the XML file, they would be transformed into relative paths to be included in the subdirectory.
- In the case of other absolute paths, an algorithm must be found.
- In the case of URLs, there is a choice to discuss: leaving resources over the network or letting them be embedded into the archive?

Ludovico introduces a discussion about a choice: whether «register» an ad-hoc extension (e.g., on FileInfo.com) or not. There are pros and cons in both cases.

Another point to discuss is whether to release recommendations or mandatory specifications.

WG members are involved in some open problems:

- Forcing or not the adoption of these specifications, also for local use?
- Registering a file-type extension?
- Embedding / allowing the embedding of network resources?
- How to deal with non-unique file paths/names logically belonging to the same layer?

Ludovico recalls that such a proposal, after discussion and emendations, will originate a deliverable. Moreover, he underlines that Sub-WG4 should develop software tools to create and manage the new format.

Giorgio Dimino suggests analyzing the IMF (Interoperable Master Format) format, a file-based media format that simplifies the delivery and storage of audio-visual masters intended for multiple territories and platforms.

Davide Andrea Mauro remarks on the activities conducted in the TROMPA (Towards Richer Online Music Public-domain Archives) project, an international research project, sponsored by the European Union.

Fernando Mantovani and Goffredo Haus report the ideas emerging from a technical conversation held with Andrea Visconti, an external expert at the University of Milan. The subject was the applicability of blockchain technology to DRM management in IEEE 1599. The result is that such a technology is mainly intended to keep track of the owners of an asset that is transferred from one owner to another, thus its applicability to our scenario is difficult.

G. Action items

WG members are invited to share the roadmap for Jan-Jun 2023, including:
- Final proposals for moving from an XML DTD to an XML Schema;
- Generalization of the concept of layer (already investigated);
- Generalization of the synchronization methods;
- Preparation of the first standard revision draft.

H. Items reported out of executive session

No items.

I. Recesses and time of final adjournment

After the final remarks of the WG chair, the meeting ends at 18.00 CEST.

J. Next meeting - date, time, and location

The next meeting is tentatively fixed for the first half of January.