# Minutes for the 5<sup>th</sup> meeting of the Working Group for XML Musical Application



WG\_1599 – Working Group for XML Musical Application

#### A. Meeting information

Date and time: January 10, 2022 – 15.30 CET Location: in-presence meeting at the Laboratory of Music Informatics, University of Milan and virtual meeting via Zoom Officer presiding: Goffredo Haus, WG chair Co-officer: Luca A. Ludovico, WG vice-chair Secretary: Adriano Baratè

## **B.** Meeting participants

Adriano Baratè Dipartimento di Informatica, Università degli Studi di Milano, Italy adriano [dot] barate [at] unimi [dot] it Voting status: voting

Shlomo Dubnov University of California San Diego, CA, USA sdubnov [at] ucsd [dot] edu Voting status: voting

Goffredo Haus Dipartimento di Informatica, Università degli Studi di Milano, Italy goffredo [dot] haus [at] unimi [dot] it Voting status: voting

Luca A. Ludovico Dipartimento di Informatica, Università degli Studi di Milano, Italy luca [dot] ludovico [at] unimi [dot] it Voting status: voting

Davide Andrea Mauro Marshall University, Huntington, WV, USA maurod [at] marshall [dot] edu Voting status: voting

Stavros Ntalampiras Dipartimento di Informatica, Università degli Studi di Milano, Italy stavros [dot] ntalampiras [at] unimi [dot] it Voting status: voting

Giorgio Presti Dipartimento di Informatica, Università degli Studi di Milano, Italy giorgio [dot] presti [at] unimi [dot] it Voting status: voting Benjamin Wolff Bohl Institut für Musikwissenschaft, Goethe-Universität Frankfurt, Germany bohl [at] em [dot] uni-frankfurt [dot] de Voting status: voting

## C. Call to order, Chair's remarks

The meeting begins at 15.30 CET. Goffredo Haus presides the meeting in his role of WG chair.

## D. Approval of minutes of the previous meeting

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

## E. Approval of agenda

The agenda is introduced by the WG vice-chair, Luca A. Ludovico, and approved by participants.

The voting / non-voting status of some of the members is updated. Shlomo Dubnov and Benjamin Wolff Bohl become voting members.

#### **F.** Technical topics

The new Policies and Procedures of the WG are briefly explained by Luca A. Ludovico. They directly derive from a new standard template proposed by IEEE. Everyone agrees.

The next part of the meeting focuses on the technical reports from sub-WGs.

Concerning the actions of sub-WG 1 – "Descriptional Framework Extensions", the main goal to achieve is the generalization of the previous 6-layer structure typical of IEEE 1599 v1. In this sense, researchers are working to present a proposal during the next meeting, also relying on the contribution of Ph.D. and bachelor/master students from the University of Milan.

Some proposals to revive the activities of Sub-WG 3 – "Intellectual Property and Digital Right Management" come from Goffredo Haus, Shlomo Dubnov, and Davide Andrea Mauro. They remark the importance of establishing a solid relationship with the industry. For example, the University of Milan has commercial and technical cooperation with Steinberg. Giorgio Presti is in charge of finding contacts of Steinberg's R&D officers. In addition to music and music-related assets stakeholders, also video-game companies are considered a good target for the IEEE 1599 initiative, as pointed out by Shlomo Dubnov.

#### G. Action items

Goffredo Haus and Luca A. Ludovico present the possibility of asking for a WG lifetime extension. In fact, 2022 should be the last year for the WG to prepare a revised standard, but the COVID-19 pandemic has strongly hampered the research activities of the WG so far, also WG members agree.

Luca A. Ludovico mentions the similarities between the IEEE 1599 approach to describe music and that of the newborn MNX format being discussed by the W3C Music Notation Community group. Benjamin Wolff Bohl, involved in the MNX initiative, also remarks on some key differences.

Benjamin Wolff Bohl underlines the novelty that IEEE 1599 could represent with respect to similar initiatives in the description of aleatoric music. Shlomo Dubnov proposes something like a variable Markov model as a format for generative applications, consisting of a feature layer synchronized to the audio, MIDI (or video) data, and a graph of

recombination/synchronization/jump points that allow non-linear reading of the contents, and remix layer for multiple tracks. The proposal will be better described in the next meeting. Moreover, a score-following / score-alignment module can be used for synchronization of the rendering from another input for production purposes or live use.

According to Shlomo Dubnov, a randomized reading of the graph (depending on the underlying musical contents) can be useful for sound textures or aleatoric music. Also reading the graph "in synch" with another input can be used for educational purposes, such as MUSIC 1.

Finally, Luca A. Ludovico underlines the possibility to send contributions focusing on IEEE 1599 to the 3<sup>rd</sup> special session on computer-supported music education (CSME), in the context of the 14<sup>th</sup> International Conference on Computer Supported Education (CSEDU), 22-24 April 2022. This could be also an occasion to involve researchers and experts from different backgrounds.

#### H. Items reported out of executive session

The 2-year project financed by Siemens and involving Paul Sacher Stiftung Basel and the University of Milan is entering its second year. The goal is to apply the IEEE 1599 format for comparing different score versions and performances by Luciano Berio.

#### I. Recesses and time of final adjournment

After the final remarks of the WG chair, the meeting ends at 16.30 CET.

#### J. Next meeting - date, time, and location

The next meeting is tentatively fixed by April 2022. The unpredictable evolution of the COVID-19 pandemic does not allow WG officers to forecast whether an in-presence meeting will be allowed. The goal for the next meeting is to discuss further results achieved by sub-WGs, paying special attention to the revision of the IEEE 1599 6-layer structure and to the relationship with the world of industry.