

# **MMA Technical Standards Board/ AMEI MIDI Committee**

## **Letter of Agreement for Recommended Practice**

### **XMF Meta File Format 2.00 (RP-043)**

#### **Abstract:**

The XMF Meta File Format 2.00 specification defines a new version of the XMF Meta File Format. The only difference from the current v.1.01 spec is that two new fixed-size, fixed-location fields have been added to the FileHeader. These simplify determination of the XMF File Type for non-XMF parsers, for example in automatic association of MIME Media Type in web server software. These fields correspond directly to the contents of existing standard meta-data field 'XMF File Type' (FieldID 0).

#### **Background:**

The IETF MIME Media Type application form asks for easily findable 'magic numbers' that uniquely indicate a file's media type. Under earlier XMF Meta File Format specs, the XMF File Type is encoded as XMF meta-data, and therefore does not appear at a known offset into the file, so an XMF parser is required to access the information. This is considered unnecessarily burdensome, and for Mobile XMF (MMA TSB#179b) simple MIME type determination was considered very important. This specification enhancement solves the problem in a manner that will work not just for Mobile XMF, but also for all future XMF File Types.

#### **Details:**

Version 2.00 of the XMF Meta File Format is identical to version 1.01, with the following exceptions:

1. In the FileHeader structure, the XmfMetaFileVersion is changed from '1.01' to '2.00'
2. In the FileHeader structure, two 4-byte big-endian fields are inserted between the XmfMetaFileVersion field and the FileLength field:
  - an XmfFileTypeID field, and
  - an XmfFileTypeRevisionID field.

Together, these two fields serve the same purpose as the standard meta-data field 'XMF File Type' (standard FieldID 0), and they have the same interpretation as the contents of that meta-data field.

Designers of XMF file types using version 2.00 of the XMF Meta File Format should consider whether to allow, deprecate, or forbid use of the Standard meta-data field 'XMF File Type' (Standard FieldID 0), as it is redundant to the new FileHeader fields introduced in version 2.00.

**Example**

Using the Mobile XMF File Type (v1.0) as an example, the revised FileHeader structure for XMF Meta File Format v2.00 is:

```
FileID                'XMF_' // 4 bytes
XmfMetaFileFormatVersion '2.00' // 4 bytes
New: XmfFileTypeID      0x00000002 // 4 bytes: 2: XMF Type 2 file (Mobile XMF)
New: XmfFileTypeRevisionID 0x00000001 // 4 bytes: 1: Version 1 of Mobile XMF spec
FileLength            <VLQ>
MetaDataTypesTable    <length delimited data structure>
TreeStart             <VLQ>
TreeEnd               <VLQ>
```