EBU Technical Recommendation R99-1999
'Unique' Source Identifier (USID) for use in the OriginatorReference field of the Broadcast Wave Format

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Sound sources stored as files in a mass storage system need to be accessed and retrieved for programme production and exchange. Thus there is a need to label BWF [1][2] source sound files sufficiently uniquely that they can be identified unambiguously. Such an identifier could also serve as the prime link to associate the audio file with data held in a database system. This identifier needs to be unique for each sound file, not just to identify the programme or producer. Applications can use the identifier instead of the file name to reference the BWF file unambiguously.

It would also be convenient if some elements of this identifier were human readable.

The <OriginatorReference> field in the BWF is as a sequence of 32 ASCII characters (not a string) provided in the BWF to contain a unique identifier of the file. The organisation originating the BWF file is responsible for the allocation of the content of the field.

However, without some convention, potential users may find it difficult to generate a suitable for the <OriginatorReference> field.

The EBU recommends that Members use the USID described in Appendix 1 in the <OriginatorReference> fields of BWF files.

Bibliography

[1] EBU N22-1997: **The Broadcast Wave Format: A format for audio data files in broadcasting**

[2] EBU Tech 3285-1997: **Specification of the Broadcast Wave Format: A format for audio files in broadcasting**

[3] ISO 3166-1:1997 **Codes for the representation of names of countries and their subdivisions -- Part 1: Country codes
(see: http://www.din.de/gremien/nas/nabd/iso3166ma/index.html)**

[4] EBU I30-1997: **Codes for broadcasting facilities and programme supports for use with the International Broadcast Tape Number (IBTN) scheme
(see: http://www.ebu.ch/tech_info_bcast.html)**

Appendix 1
"Unique" Source Identifier (USID) for use in the OriginatorReference field of the Broadcast Wave Format

USID

The USID in the ‹OriginatorReference› is generated using several independent randomisation sources in order to guarantee its uniqueness in absence of a single allocation authority. An effective and easy to use randomisation method is obtained by combining user, machine and time specific information plus a random number. These elements are:

- CC   Country code: (2 characters) based on the ISO 3166 standard [3]

- OOO   Organisation code: (3 characters) based on the EBU facility codes, I30-1996.[4]

- NNNNNNNNNNNN   Serial number: (12 characters extracted from the recorder model and serial number) This should identify the machine's type and serial number.

- HHMMSS   OriginationTime (6 characters,) from the ‹OriginationTime› field of the BWF.

These elements should be sufficient to identify a particular recording in a human-useful form in conjunction with other sources of information, formal and informal. In addition, the USID contains:

- RRRRRRRRR   Random Number (9 characters 0-9) Generated locally by the recorder using some reasonably random algorithm.

This element serves to separately identify files made at the same time, such as stereo channels, or tracks within multitrack recordings.

Examples of USIDs
Example 1

USID generated by a Tascam DA88, S/N 396FG347A, operated by RAI, Radiotelevisione Italiana, at time: 12:53:24

```
UDI format:    CCOOO  NNNNNNNNNNNN  HHMMSS  RRRRRRRRR

UDI Example:   ITRAI  DA88396FG347  125324  098748726
```

Example 2

USID generated by a RadioMan workstation RMRFIN, S/N RFI011, operated by YLE, Finnish Broadcasting, at time: 08:14:48

```
UDI format:    CCOOO  NNNNNNNNNNNN  HHMMSS  RRRRRRRRR

UDI Example:   FIYLE  RMRFINRFI011  081448  877248640
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