ProppFrexx ONAIR

Version 3.0

PFP Playlist-Format

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ProppFrexx Playlist-Format (PFP)

Introduction

The ProppFrexx Playlist-Format is based on the xspf format (sharable playlist format, see www.xspf.org) using various extensions.

It uses the file extension “.pfp” and is an xml based file using UTF-8 encoding.

It is a playlist format like M3U or ASX but is able to keep additional metadata for its entries, which are used by ProppFrexx ONAIR. This additional metadata includes (among others) information like cue-points, volume-points, TAG data, embedded containers etc.

The xml element nodes are case-sensitive!

What does PFP look like?

A very simple PFP file looks like this:

```
<?xml version="1.0" encoding="utf-8"?>
<playlist version="1" xmlns:pf="http://proppfrexx.radio42.com" xmlns="http://xspf.org/ns/0/">
    <trackList>
        <track>
            <location>My Music\Test File1.mp3</location>
        </track>
        <track>
            <location>\\MyMachine\My Music\Test File2.wma</location>
        </track>
        <track>
            <location>http://example.com/song_1.mp3</location>
        </track>
        <track>
            <location>D:\My Music\Test File3.wav</location>
            <extension application="http://proppfrexx.radio42.com">
                <pf:settings>
                    <pf:general>
                        <pf:entryType>1</pf:entryType>
                    </pf:general>
                </pf:settings>
            </extension>
        </track>
    </trackList>
</playlist>
```

Notice that it's *trackList*, with an uppercase *L*, not *tracklist*, with a lowercase *l*.

Also notice, that the actual file *location* is an *URI* and can be either a relative (to the location of the pfp file itself) or an absolute path and filename of the location of the physical track (Note: the location must be accessible from any ProppFrexx ONAIR client and can also be an *UNC* path). If a http: *URL* is given the track will denote an internet stream; if a ftp: *URL* is given the track will denote an downloadable internet file.

The only mandatory element for a *track* is the *location*.

Abstractions

A PFP playlist describes a sequence of media entries to be used. Media Entries are typically references to physical audio files but might also be text, other playlists, or any other media type. The function of a playlist is to identify the media entries and communicate their order.

In addition it is used to communicate additional metadata about the composer, song title, artist, genre, moderator-text, etc. as well as cue-points, hotstart-points, loop-points, event-entries, embedded content etc. All of which might be used by ProppFrexx ONAIR to receive additional information about how a certain media entry should be used.

The PFP playlist must be well formed XML. All node values and attributes must therefore be xml encoded if needed.

Playlist Element Definitions

As a PFP file is an XML document it must start with an XML declaration:

```
<?xml version="1.0" encoding="utf-8"?>
```

Playlist (<playlist>)

This element is mandatory and is the root element of the document and contains a version number attribute and namespace attributes. Enclosed you'll find the *trackList* element as well as some elements describing the playlist (which are the *title*, *creator* and *date*).

Attributes

version

Must be "1".

xmlns

Must be "http://xspf.org/ns/0/".

xmlns:pf

Must be "http://proppfrexx.radio42.com".

Example

```
<playlist version="1" xmlns:pf="http://proppfrexx.radio42.com" xmlns="http://xspf.org/ns/0/">
    <title>My Playlist Title</title>
    <creator>ProppFrexx ONAIR</creator>
    <date>2011-01-28T14:13:49+01:00</date>
    <trackList>
        ...
    </trackList>
</playlist>
```

Playlist Title (<title>)

This element is optional and denotes the title of the playlist (if omitted the title is derived from the filename of the pfp).

Playlist Creator (<creator>)

This element is optional and denotes the creator of the playlist (e.g. ProppFrexx OANIR).

Playlist Date (<date>)

This element is optional and denotes the date when the playlist was created resp. last modified, formatted as a XML schema dateTime.

A sample date is "2005-01-08T17:10:47-05:00".

TrackList (<trackList>)

This element is mandatory and contains the actual *track* entries (none, one or more). The order of the *track* entries represents the order of the playlist items to use (when using a pfp playlist as a media library this order is actually irrelevant). If a *track* element cannot be rendered, a user-agent MUST skip to the next *track* element and MUST NOT interrupt the sequence. *playlist* elements MUST contain one and only one *trackList* element. The *trackList* element may be empty.

Example

```
<trackList>
    <track>
        ...
    </track>
    <track>
        ...
    </track>
    ...
</trackList>
```

Track (<track>)

This element is optional and describes exactly one media entry within the playlist's track listing.

The actual track elements are further described in the following chapter.

Track Element Definitions

Location (<location>)

This element is mandatory and describes the actual file *location* as an *URI* and can be either a relative (to the location of the pfp file itself) or an absolute path and filename of the location of the physical track (Note: the location must be accessible from any ProppFrexx ONAIR client and can also be an *UNC* path). If a *http: URL* is given the track will denote an internet stream; if a *ftp: URL* is given the track will denote an downloadable internet file. The *location* might also be a reference to another playlist; in which case that playlist content might be recursively included or be used as an embedded content (as defined in the ProppFrexx ONAIR settings).

There should be only one *location* element within a *track*.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
    </track>
    <track>
        <location>\\MyMachine\My Music\Test File2.wma</location>
    </track>
    <track>
        <location>http://example.com/song_1.mp3</location>
    </track>
    <track>
        <location>D:\My Music\Test File3.wav</location>
    </track>
    <track>
        <location>My Music\Test Playlist.pfp</location>
    </track>
</trackList>
```

Duration (<duration>)

This element is optional and describes the total length of the track, in milliseconds. This value is only a hint. The *track* element MAY contain exactly one *duration* element.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <duration>398506</duration>
    </track>
</trackList>
```

GUID (<identifier>)

This element is optional and denotes a global, system-wide unique identifier (GUID) of the track. If not given it might be created by ProppFrexx ONAIR automatically. The *track* element MAY contain exactly one *identifier* element.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <identifier>d35d773a-86d4-4138-ab9b-57272df56f25</identifier>
    </track>
</trackList>
```

Title (<title>)

This element is optional and describes a human-readable name of the track. The *track* element MAY contain exactly one.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <title>My Song Title</location>
    </track>
</trackList>
```

Artist (<creator>)

This element is optional and describes a human-readable name of the creator of the *track* (e.g. the artist, author, group, company, etc.). The *track* element MAY contain exactly one.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <creator>The Artist Name</creator>
    </track>
</trackList>
```

Album (<album>)

This element is optional and describes a human-readable name of the collection from which the entry comes. For a song originally published as a part of a CD or LP, this would be the title of the original release. The *track* element MAY contain exactly one.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <album>From the Bottom of My Heart</album>
    </track>
</trackList>
```

MetaData (<extension>)

This element is optional and contains nested XML describing further ProppFrexx specific metadata.

The actual metadata elements are further described in the following chapter.

Attributes

application

Must be “http://proppfrexx.radio42.com”.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            ...
        </extension>
    </track>
</trackList>
```

MetaData Element Definitions

Settings (<pf:settings>)

This element is optional and contains nested XML grouping further ProppFrexx specific *track* settings. The *extension* element MAY contain exactly one.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:settings>
                ...
            </pf:settings>
        </extension>
    </track>
</trackList>
```

General Settings (<pf:general>)

This element is optional and contains nested XML describing further ProppFrexx specific general *track* settings. The *pf:settings* element MAY contain exactly one.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:settings>
                <pf:general>
                    <pf:entryType>1</pf:entryType>
                    <pf:options>2048</pf:options>
                    <pf:trackEndIndicator>C</pf:trackEndIndicator>
                    <pf:bpm>123.37056</pf:bpm>
                    <pf:tempo>0.1</pf:tempo>
                    <pf:gain>-0.98</pf:gain>
                    <pf:genre>Jazz</pf:genre>
                    <pf:year>Jazz</pf:year>
                    <pf:year>1998</pf:year>
                    <pf:grouping>Contemporary</pf:grouping>
                    <pf:mood>Relax</pf:mood>
                    <pf:rating>20</pf:rating>
                    <pf:isrc>DEA239810012</pf:isrc>
                    <pf:moderatorText>Some text for the DJ.</pf:moderatorText>
                </pf:general>
            </pf:settings>
        </extension>
    </track>
</trackList>
```

Entry Type (<pf:entryType>)

This element is optional and denotes type of the media entry as an integer value and must be one of the following. The *pf:general* element MAY contain exactly one.

```
Music = 0
Music2 = 1
NewMusic = 2
Jingle = 3
Advertising = 4
Announcement = 5
News = 6
Sports = 7
Weather = 8
Traffic = 9
Report = 10
InternetStream = 11
Show = 12
Home = 13
Hot = 14
Watch = 15
Warning = 16
Green = 17
Yellow = 18
```

```
Red = 19
Blue = 20
Bed = 21
SoundBit = 22
Commercial = 23
Contest = 24
Emergency = 25
SoundEffect = 26
Filler = 27
StationID = 28
Intro = 29
Liner = 30
Logo = 31
MagicCall = 32
Promo = 33
Segue = 34
Spot = 35
Stager = 36
Stack = 37
Sweeper = 38
TestTone = 39
Temporary = 40
Overlay = 41
DropIn = 42
DropOut = 43
Outro = 44
Other = 45
Miscellaneous = 46
PhoneCall = 47
Talk = 48
Article = 49
World = 50
Local = 51
Automation = 52
Brand = 53
Pitch = 54
Break = 55
User1 = 56
User2 = 57
User3 = 58
User4 = 59
User5 = 60
User6 = 61
User7 = 62
User8 = 63
User9 = 64
EmbeddedPlaylist = 100
EmbeddedContainer = 101
Document = 200
Placeholder = 201
TimeUpdate = 202
```

Entry Options (<pf:options>)

This element is optional and denotes options associated with the media entry as an integer value and must be any combination (logical OR) of the following flags. The *pf:general* element MAY contain exactly one.

```
None                                = 0
ClearAllCuePoints                   = 256
ClearAllEventEntries                = 512
ClearAllVolumePoints                = 1024
SupressACPD                         = 2048
RecalcACDP                          = 4096
KeepStreamLoading                   = 8192
LoopEntry                           = 16384
StopAtEnd                           = 32768
SupressFading                       = 65536
KeepStreamAlive                     = 131072
SupressOverlay                      = 262144
```

```
SuppressGloablLogging          = 524288
SuppressPlaylistLogging        = 1048576
SupressBacktiming              = 2097152
SkipDuringAutoPlay             = 4194304
UseHookCuePoints               = 8388608
SupressTrackInsertTransition   = 16777216
AutoPlayNext                   = 33554432
StopAutoPlay                   = 67108864
StartAutoPlay                  = 134217728
SupressSongTitleUpdate         = 268435456
```

End Indicator (<pf:trackEndIndicator>)

This element is optional and should describe the ending of the track as a single character value (e.g. '\' for a faded ending or '|' for an immediate ending; any other single character value might be used of your choise). The *pf:general* element MAY contain exactly one.

Beats Per Minute (<pf:bpm>)

This element is optional and should contain the BPM value of the track as a non-negative floating point value in invariant notation (using the '.' as the decimal separator; e.g. "124.71"). The *pf:general* element MAY contain exactly one.

Initial Tempo (<pf:tempo>)

This element is optional and might contain the tempo of track to be used when the track is initially played (note, that additional tempo change events might change this initial temp, see the *eventEntries* element). The value is given as a positive (tempo increase) or negative (tempo decrease) floating point value (0.0 means no tempo change) in invariant notation (using the '.' as the decimal separator; e.g. "1.03"). The *pf:general* element MAY contain exactly one.

Initial Gain (<pf:gain>)

This element is optional and might contain the general gain (amplification) value of track to be used (note, that this gain value is applied on top of any *ReplayGain* value; the final amplification will be the product of this value and the *ReplayGain* value). The value is given as a linear non-negative floating point value (between 0.0 = silent and >1.0 = amplification; 1.0 means no gain; as such a value <1.0 mean an attenuation) in invariant notation (using the '.' as the decimal separator; e.g. "1.03"). The *pf:general* element MAY contain exactly one.

Genre (<pf:genre>)

This element is optional and describes the genre of the track as a human-readable string. The *pf:general* element MAY contain exactly one.

Year (<pf:year>)

This element is optional and describes the original recording resp. creation date of the track as a human-readable string. For a song originally published as a part of a CD or LP, this would be the original release/publication date. The *pf:general* element MAY contain exactly one.

Grouping (<pf:grouping>)

This element is optional and denotes logical grouping criteria of the track as a human-readable string, which might be used for any fuzzy lookup within ProppFrexx. The *pf:general* element MAY contain exactly one.

Mood (<pf:mood>)

This element is optional and denotes the mood which is represented by this track, which might be used for any fuzzy lookup within ProppFrexx. The *pf:general* element MAY contain exactly one.

Rating (<pf:rating>)

This element is optional and denotes the rating (quality) of this track, which might be used for any fuzzy lookup within ProppFrexx. The rating value is a numeric string and scales from 0 to 100 (0=Unknown, 1-20=Poor, 21-40=Average, 41-60=Good, 61-80=VeryGood, 81-100=Excelent). The *pf:general* element MAY contain exactly one.

International Standard Recording Code (<pf:isrc>)

This element is optional and contains the International Standard Recording Code of this track. The *pf:general* element MAY contain exactly one.

Moderator Text (<pf:moderatorText>)

This element is optional and might contain any text to be presented as additional track information to a DJ. The *pf:general* element MAY contain exactly one.

Type of TAG Data (<pf:tagType>)

This element is optional (but if present, it denotes, that TAG data reading has been performed on this entry) and contains a numerical string value representing the type of TAG data which has been used to read the TAG data information (see below). If this element is present any other meta data elements in this block are considered complete and correct (and might prevent ProppFrexx from performing any extra TAG data reading). The *pf:general* element MAY contain exactly one.

```
ID3 = 0
ID3V2 = 1
OGG = 2
APE = 6
MP4 = 7
WMA = 8
VENDOR = 9
CA_CODEC = 11
MF = 13
WAVEFORMAT = 14
RIFF_INFO = 256
RIFF_BEXT = 257
RIFF_CART = 258
```

TAG Data Last Read (<pf:tagRead>)

This element is optional (but mandatory if the *<pf:tagType>* element is present) and denotes the date when the TAG data was last read in, formatted as a XML schema dateTime (e.g. "2012-01-08T17:10:47-05:00"). The *pf:general* element MAY contain exactly one.

Bitrate (<pf:bitRate>)

This element is optional (but mandatory if the *<pf:tagType>* element is present) and contains a numerical string value representing the bitrate of related audio file in kilobytes per seconds (e.g. “320” for 320 KBps, or “1411” for a PCM 44.1Hz, 16-bit, stereo recording). The *pf:general* element MAY contain exactly one.

Album Artist (<pf:albumArtist>)

This element is optional (but mandatory if the *<pf:tagType>* element is present) and describes a human-readable name of the performer involved in the album recording (multiple entries might be separated by a semicolon ‘;’). The *pf:general* element MAY contain exactly one.

Comment (<pf:comment>)

This element is optional (but mandatory if the *<pf:tagType>* element is present) and might contain any text as a comment to the recording/track. The *pf:general* element MAY contain exactly one.

Track Number (<pf:trackNo>)

This element is optional (but mandatory if the *<pf:tagType>* element is present) and contains the 'Track number/Position in Set' as a numeric string containing the order number of the audio-file on its original recording. This may be extended with a "/" character and a numeric string containing the total nubmer of tracks/elements on the original recording (e.g. "4/9"). The *pf:general* element MAY contain exactly one.

Disc Number (<pf:discNo>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and contains the 'Part of a Set' as a numeric string that describes which part of a set the audio came from. This is used if the source is divided into several mediums, e.g. a double CD. The value may be extended with a "/" character and a numeric string containing the total number of parts in the set (e.g. "1/2"). The *pf:general* element MAY contain exactly one.

Copyright (<pf:copyright>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and might contain a human-readable text to denote the copyright holder of the original sound or the audio file itself. The *pf:general* element MAY contain exactly one.

Encoded By (<pf:encodedBy>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and might contain the name of the person or organization that encoded the audio file. This field may contain a copyright message, if the audio file also is copyrighted by the encoder. The *pf:general* element MAY contain exactly one.

Composer (<pf:composer>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and might contain the name of the composer (multiple entries might be separated by a semicolon ';'). The *pf:general* element MAY contain exactly one.

Publisher (<pf:publisher>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and might contain the name of the label or publisher. The *pf:general* element MAY contain exactly one.

Conductor (<pf:conductor>)

This element is optional and might contain the name of the conductor. The *pf:general* element MAY contain exactly one.

Lyricist (<pf:lyricist>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and might contain the name of the writer of the text or lyrics in the recording (multiple entries might be separated by a semicolon ';'). The *pf:general* element MAY contain exactly one.

Remixer (<pf:remixer>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and might contain more information about the people behind a remix and similar interpretations of another existing piece, e.g. people who interpreted, remixed, or otherwise modified this recording (multiple entries might be separated by a semicolon ';'). The *pf:general* element MAY contain exactly one.

Producer (<pf:producer>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and might contain more information about the people involved in the recording, typically the producer should be named here, but that might also be extended to such as musicians and technicians (multiple entries might be separated by a semicolon ';'). The *pf:general* element MAY contain exactly one.

Samplerate (<pf:ciFreq>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and contains a numerical string value representing the sample rate of related audio file in Hz (e.g. “44100” for 44.1 KHz). The *pf:general* element MAY contain exactly one.

Number of Channels (<pf:ciChans>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and contains a numerical string value representing the number of channels of the related audio file (e.g. “2” for stereo). The *pf:general* element MAY contain exactly one.

Type of Audio (<pf:ciType>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and contains a numerical string value representing the type/format of the related audio file (see below). The *pf:general* element MAY contain exactly one.

```
UNKNOWN = 0
OGG = 65538
MP1 = 65539
MP2 = 65540
MP3 = 65541
AIFF = 65542
CA = 65543 (CoreAudio)
MF = 65544 (Media Foundation Codec)
WAV = 262144
WV = 66816 (WavPack)
CD = 66048 (Audio-CD)
WMA = 66304
WMA_MP3 = 66305 (MP3 over WMA)
FLAC = 67840
FLAC_OGG = 67841 (OGG over FLAC)
OFR = 67072 (Optimfrog)
APE = 67328
MPC = 68096 (MusePack)
AAC = 68352
MP4 = 68353
SPX = 68608 (Speex)
ALAC = 69120 (Apple Lossless)
TTA = 69376 (TrueTypeAudio)
AC3 = 69632
OPUS = 70144
ADX = 126976
AIX = 126977
VIDEO = 69888
```

Bits per Sample (<pf:ciOrigRes>)

This element is optional (but mandatory if the <*pf:tagType*> element is present) and contains a numerical string value representing the resolution in Bits per Sample of the related audio file (e.g. “24” for a 24-bit recording). The *pf:general* element MAY contain exactly one.

Cue Points (<pf:cuePoints>)

This element is optional and contains nested XML describing the cue points of the *track*. The *pf:settings* element MAY contain exactly one.

All cue points must be valid within the range of the total duration of the track!

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:settings>
                <pf:cuePoints>
                    <pf:cueIn>0.10376417233560091</pf:cueIn>
                    <pf:fullLevel>1.6037641723356009</pf:fullLevel>
                    <pf:ramp>7.30521541950117</pf:fullLevel>
                    <pf:ramp2>15.80521541950117</pf:fullLevel>
                    <pf:outro>143.30521541950117</pf:fullLevel>
                    <pf:fadeOut>153.638571428571428</pf:fadeOut>
                    <pf:next>154.3885714285714288</pf:next>
                    <pf:cueOut>155.73578231292517</pf:cueOut>
                </pf:cuePoints>
            </pf:settings>
        </extension>
    </track>
</trackList>
```

Cue In (<pf:cueIn>)

This element is optional and defines the absolute cue-in position of the track in seconds (where the track should start playing). The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:cuePoints* element MAY contain exactly one.

Full Level (<pf:fullLevel>)

This element is optional and defines the absolute position of the track in seconds where the track should reach its full volume. If given, the tracks volume is ramped between the *Cue In* and *Full Level* position. The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:cuePoints* element MAY contain exactly one.

Ramp 1 (<pf:ramp>)

This element is optional and defines the absolute position of the end of the first intro part of the track in seconds (a ramp might be used as a hint for the DJ where his moderation should end). The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:cuePoints* element MAY contain exactly one.

Ramp 2 (<pf:ramp2>)

This element is optional and defines the absolute position of the end of the second intro part of the track in seconds (a ramp might be used as a hint for the DJ where his moderation should end). The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:cuePoints* element MAY contain exactly one. When given it MUST be larger than the *Ramp 1* position.

Outro (<pf:outro>)

This element is optional and defines the absolute position of the start of the outro part of the track in seconds (an outro might be used as a hint for the DJ where his moderation might start). The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:cuePoints* element MAY contain exactly one.

Fade Out (<pf:fadeOut>)

This element is optional and defines the absolute position of the track in seconds where the track should start fading out. If given, the tracks volume is ramped between the *Fade Out* and *Cue Out* position. The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:cuePoints* element MAY contain exactly one.

Next (<pf:next>)

This element is optional and defines the absolute position of the track in seconds where the next track should be started (only used in *AutoPlay* mode within ProppFrexx). The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:cuePoints* element MAY contain exactly one.

Cue Out (<pf:next>)

This element is optional and defines the absolute position of the track in seconds where the track end (if not given, the track will end with its natural end/duration). The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:cuePoints* element MAY contain exactly one.

Additional Cue Points (<pf:otherCuePoints>)

This element is optional and contains nested XML describing additional cue points of the *track*. The *pf:settings* element MAY contain no, one or more. Each set of additional cue points is uniquely identified by a *name* element. Currently on the name "HOOK" is effectively used within ProppFrexx.

All additional cue points must be valid within the range of the total duration of the track!

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:settings>
                <pf:otherCuePoints>
                    <pf:name>HOOK</pf:name>
                    <pf:cueIn>52.059614512471654</pf:cueIn>
                    <pf:fullLevel>52.131247165532876</pf:fullLevel>
                    <pf:fadeOut>65.888571428571424</pf:fadeOut>
                    <pf:cueOut>66.298730158730152</pf:cueOut>
                </pf:otherCuePoints>
            </pf:settings>
        </extension>
    </track>
</trackList>
```

Name (<pf:name>)

This element is mandatory and uniquely identifies the additional set of cue points. The *pf:otherCuePoints* element MUST contain exactly one.

All other elements are exactly the same as described above in the section *Cue Points*.

Hot Start Points (<pf:hotStart>)

This element is optional and contains nested XML describing additional points of the *track* which might be used as hot start points (the DJ might directly jump to this position). The *pf:settings* element MAY contain exactly one.

The hot star points must be valid within the range of the total duration of the track!

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:settings>
                <pf:hotStart>
                    <pf:_0>52.059614512471654</pf:_0>
                    <pf:_1>97.605986394557824</pf:_1>
                    <pf:_2>152.51646258503405</pf:_2>
                </pf:hotStart>
            </pf:settings>
        </extension>
    </track>
</trackList>
```

Name (<pf:_X>)

This element is optional and uniquely identifies the hot start point. Its name is given in the node element itself. *X* might be between 0 and 9 and must be prefixed with a '_' character. Valid nodes therefore are "pf:_0", "pf:_1" , "pf:_2" , "pf:_3" , "pf:_4" , "pf:_5" , "pf:_6" , "pf:_7" , "pf:_8" , "pf:_9".

The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:hotStart* element MAY contain exactly one for each *X*.

Loop Points (<pf:loopPoints>)

This element is optional and contains nested XML describing loop points of the *track* which might be used within the loop sampler of the players of ProppFrexx. The *pf:settings* element MAY contain exactly one. Loop points consist of a *type*, a *start* position and an *end* position.

The loop points must be valid within the range of the total duration of the track!

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:settings>
                <pf:loopPoints>
                    <pf:_0>
                        <pf:type>0</pf:type>
                        <pf:start>7.81689342403628118</pf:start>
                        <pf:end>10.4106349206349207</pf:end>
                    </pf:_0>
                    <pf:_1>
                        <pf:type>1</pf:type>
                        <pf:start>17.0136961451247166</pf:start>
                        <pf:end>20.20156462585035</pf:end>
                    </pf:_1>
                </pf:loopPoints>
            </pf:settings>
        </extension>
    </track>
</trackList>
```

Name (<pf:_X>)

This element is optional and uniquely identifies the loop point. Its name is given in the node element itself. *X* might be between 0 and 4 and must be prefixed with a '_' character. Valid nodes therefore are "pf:_0", "pf:_1" , "pf:_2" , "pf:_3" , "pf:_4". The *pf:loopPoints* element MAY contain exactly one for each *X*.

This element is optional and contains nested XML further describing this particular loop point.

Loop Type (<pf:type>)

This element is mandatory and defines the type of loop to be used as an integer value (0=Off, 1=Loop, 2=Skip). The *pf:_X* element MUST contain exactly one. When set to 1 the respective section defined by *start* and *end* is constantly looped. When set to 2 the respective section is skipped during playback.

Loop Start (<pf:start>)

This element is mandatory and defines the absolute position of the start of this loop point in seconds. The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:_X* element MUST contain exactly one.

Loop End (<pf:end>)

This element is mandatory and defines the absolute position of the end of this loop point in seconds. The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:_X* element MUST contain exactly one.

Volume Points (<pf:volumePoints> and <pf:volumePointsHook>)

This element is optional and contains nested XML describing regular respectively hook volume points of the *track*. Volume points describe an overall envelope of the track which defines the volume at any given time of the track. Regular and hook volume points are stored separately (if both do exist). The *pf:settings* element MAY contain exactly one <pf:volumePoints> and one <pf:volumePointsHook>. A single volume point consists of a *position* and a *level* value. There can be any number of volume points.

The volume points must be valid within the range of the total duration of the track!

Example (regular volume points)

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:settings>
                <pf:volumePoints>
                    <pf:_0>
                        <pf:position>0</pf:position>
                        <pf:level>0.0</pf:level>
                    </pf:_0>
                    <pf:_1>
                        <pf:position>0.035918367346938776</pf:position>
                        <pf:level>0.0</pf:level>
                    </pf:_1>
                    <pf:_2>
                        <pf:position>0.53591836734693876</pf:position>
                        <pf:level>1.0</pf:level>
                    </pf:_2>
                    <pf:_3>
                        <pf:position>276.54015873015874</pf:position>
                        <pf:level>1.0</pf:level>
                    </pf:_3>
                    <pf:_4>
                        <pf:position>277.12816326530611</pf:position>
                        <pf:level>0.0</pf:level>
                    </pf:_4>
                </pf:volumePoints>
            </pf:settings>
        </extension>
    </track>
</trackList>
```

Name (<pf:_X>)

This element is mandatory and uniquely identifies a volume point. Its name is given in the node element itself. *X* must start with 0 and must be further ascending (incremented by 1) and must be prefixed with a '_' character. Valid nodes therefore are "pf:_0", "pf:_1" , "pf:_2" , "pf:_3" , "pf:_4", etc. The *pf:volumePoints* element MAY contain exactly one for each *X*.

The first volume point should start at the beginning (position 0.0) of the track and the last volume point should end at the natural end/duration of the track.

This element is mandatory and contains nested XML further describing this particular volume point.

Position (<pf:position>)

This element is mandatory and defines the absolute position of this volume point in seconds. The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:_X* elements MUST contain exactly one.

Level (<pf:level>)

This element is mandatory and defines the absolute linear volume level (ranging between 0.0 = silent and 1.0 = maximum volume) for this volume point. The value is given as a floating point value in invariant notation (using the '.' as the decimal separator). The *pf:_X* elements MUST contain exactly one.

Event Entries (<pf:eventEntries>)

This element is optional and contains nested XML describing event entries of the *track*. Event entries are positions within the track where a certain action should be performed (when during playback this position is reached). The *pf:settings* element MAY contain exactly one. A single event entry consists of a *position*, a *type* and an arbitrary *data* value. There can be any number of event entries.

The event entry positions must be valid within the range of the total duration of the track!

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:settings>
                <pf:eventEntries>
```

```
                    <pf:_0>
                        <pf:position>27.020272108843539</pf:position>
                        <pf:type>0</pf:type>
                        <pf:data>4.671533</pf:data>
                    </pf:_0>
                </pf:eventEntries>
            </pf:settings>
        </extension>
    </track>
</trackList>
```

Name (<pf:_X>)

This element is mandatory and uniquely identifies an event entry. Its name is given in the node element itself. *X* must start with 0 and must be further ascending (incremented by 1) and must be prefixed with a '_' character. Valid nodes therefore are "pf:_0", "pf:_1" , "pf:_2" , "pf:_3" , "pf:_4", etc. The *pf:eventEntries* element MAY contain exactly one for each *X*.

This element is mandatory and contains nested XML further describing this particular event entry.

Position (<pf:position>)

This element is mandatory and defines the absolute position of this event entry in seconds. The value is given as a floating point value in double precision in invariant notation (using the '.' as the decimal separator). The *pf:_X* elements MUST contain exactly one.

Type (<pf:type>)

This element is mandatory and defines the type of event (action) to perform when this position is reached as an integer value (one of the following). The value is. The *pf:_X* elements MUST contain exactly one.

```
TempoChange = 0
Data (float): new tempo in percent (e.g. +5.0).

FXChange = 1
Data (int): the effect to set
           (0=Off, 1=Echo, 2=Chorus, 3=Flanger, 4=3D, 5=Wah, 6=Phaser,
            7=Reverb, 8=APF, 9=Delay).

TrackInsert = 3
Data (string): filename of the audio track to insert.

PlaylistInsert = 4
Data (string): filename of the embedded playlist to insert.

ExecuteCommand = 5
Data (string): command(s) to execute
           (multiple commands are separated by \r\n).

SoundBed = 6
Data (string): soundbedfile|attenuation.
```

Data (<pf:data>)

This element is mandatory and defines the arbitrary parameter data related to this event. The value depends on the *pf:type* (see above). The *pf:_X* elements MUST contain exactly one.

The "TrackInsert" event might actually contain the following optional attributes in its *pf:data* element:

Attributes

pf:cuein, pf:fulllevel, pf:ramp, pf:ramp2, pf:outro, pf:next, pf:fadeout, pf:cueout, pf:gain, pf:tempo

The attribute values are according to the already known cue-points resp. the initial gain and initial tempo.

Embedded Elements (<pf:embedded>)

This element is optional and contains nested XML grouping content embedded within the *track*. The *extension* element MAY contain exactly one.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:embedded>
                <pf:type>container</pf:type>
                <pf:count>4</pf:count>
                <pf:collection>
                    <track>
                        ...
                    </track>
                    <track>
                        ...
                    </track>
                    <track>
                        ...
                    </track>
                    <track>
                        ...
                    </track>
            </pf:embedded>
        </extension>
    </track>
</trackList>
```

This element is only used within ProppFrexx ONAIR and is therefore not of further relevance. Note, that the *track* elements are having the same notation as explained here – just nested.

FixTime Element (<pf:fixTime>)

This element is optional and contains information which describes the track as a special FixTime element. The *extension* element MAY contain exactly one.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:fixTime>
                <pf:startTime>12:00:00</pf:startTime>
                <pf:startType>1</pf:startType>
                <pf:maxDelay>30</pf:maxDelay>
                <pf:maxRemain>0</pf:maxRemain>
                <pf:asOverlay>False</pf:asOverlay>
                <pf:attenuation>-12.0</pf:attenuation>
            <pf:fixTime>
        </extension>
    </track>
</trackList>
```

This element is only used within ProppFrexx ONAIR and is therefore not of further relevance.

TimeUpdateSync Element (<pf:timeUpdate>)

This element is optional and contains information which describes the track as a special TimeUpdateSync element. The *extension* element MAY contain exactly one.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:timeUpdate>
                <pf:startTime>12:00:00</pf:startTime>
                <pf:startType>1</pf:startType>
                <pf:maxDelay>30</pf:maxDelay>
                <pf:fadeOutTime>1500</pf:fadeOutTime>
            <pf:timeUpdate>
        </extension>
    </track>
</trackList>
```

This element is only used within ProppFrexx ONAIR and is therefore not of further relevance.

TrackInsertTransition Element (<pf:insertTransition>)

This element is optional and contains information which describes the track as a special TrackInsertTransition element. The *extension* element MAY contain exactly one.

Example

```
<trackList>
    <track>
        <location>My Music\Test File1.mp3</location>
        <extension application="http://proppfrexx.radio42.com">
            <pf:insertTransition>
                <pf:transitionType>StartWithOutroOfPreviousTrack</pf:transitionType>
                <pf:transitionAttenuation>-12.0</pf:transitionAttenuation>
            <pf:insertTransition>
        </extension>
    </track>
</trackList>
```

This element is only used within ProppFrexx ONAIR and is therefore not of further relevance.

Examples

Minimum

```
<?xml version="1.0" encoding="utf-8"?>
<playlist version="1" xmlns:pf="http://proppfrexx.radio42.com" xmlns="http://xspf.org/ns/0/">
    <trackList>
        <track>
            <location>Bs40th\03_BARBARA FOWLER 1.mp3</location>
        </track>
        <track>
            <location>Bs40th\Sara Devine-Special [Louie Vega Remix].wma</location>
            <extension application="http://proppfrexx.radio42.com">
                <pf:settings>
                    <pf:general>
                        <pf:entryType>0</pf:entryType>
                    </pf:general>
                </pf:settings>
            </extension>
        </track>
    </trackList>
</playlist>
```

Other

```
<?xml version="1.0" encoding="utf-8"?>
<playlist version="1" xmlns:pf="http://proppfrexx.radio42.com" xmlns="http://xspf.org/ns/0/">
    <title>trackboard</title>
    <creator>ProppFrexx ONAIR</creator>
    <date>2012-01-24T13:12:15+01:00</date>
    <trackList>
        <track>
            <location>\My Music\The Sunburst Band-Twinkle.wma</location>
            <duration>277133</duration>
            <identifier>ac2815e6-be77-4ad9-be05-5566e05d58e5</identifier>
            <title>Twinkle</title>
            <creator>The Sunburst Band</creator>
            <album>Until The End Of Time</album>
            <extension application="http://proppfrexx.radio42.com">
                <pf:settings>
                    <pf:general>
                        <pf:entryType>0</pf:entryType>
                        <pf:bpm>115.652</pf:bpm>
                        <pf:genre>House</pf:genre>
                        <pf:year>2004</pf:year>
                        <pf:grouping>My Group</pf:grouping>
                        <pf:mood>My Mood</pf:mood>
                        <pf:rating>20</pf:rating>
                        <pf:isrc>DE1234567890</pf:isrc>
                    </pf:general>
                    <pf:cuePoints>
                        <pf:cueIn>0.035918367346938776</pf:cueIn>
                        <pf:fullLevel>0.53591836734693876</pf:fullLevel>
                        <pf:fadeOut>276.54016326530615</pf:fadeOut>
                        <pf:next>276.43972789115651</pf:next>
                        <pf:cueOut>277.12816326530617</pf:cueOut>
                    </pf:cuePoints>
                    <pf:volumePoints>
                        <pf:_0>
                            <pf:position>0</pf:position>
                            <pf:level>0</pf:level>
                        </pf:_0>
                        <pf:_1>
                            <pf:position>0.035918367346938776</pf:position>
                            <pf:level>0</pf:level>
                        </pf:_1>
                        <pf:_2>
                            <pf:position>0.53591836734693876</pf:position>
                            <pf:level>1</pf:level>
                        </pf:_2>
                        <pf:_3>
                            <pf:position>276.54015873015874</pf:position>
                            <pf:level>1</pf:level>
                        </pf:_3>
                        <pf:_4>
                            <pf:position>277.12816326530611</pf:position>
                            <pf:level>0</pf:level>
                        </pf:_4>
                    </pf:volumePoints>
                    <pf:eventEntries>
                        <pf:_0>
                            <pf:position>27.020272108843539</pf:position>
                            <pf:type>0</pf:type>
                            <pf:data>4.671533</pf:data>
                        </pf:_0>
                    </pf:eventEntries>
                </pf:settings>
            </extension>
        </track>
        <track>
            <location>\My Music\The Braxtons-The Boss [MAW Mix].wma</location>
            <duration>489150</duration>
            <identifier>1fd3e475-66aa-48d2-897f-eba4e12709b7</identifier>
            <title>The Boss [MAW Mix]</title>
            <creator>The Braxtons</creator>
            <album>In The House: Louie Vega Disc 2</album>
            <extension application="http://proppfrexx.radio42.com">
                <pf:settings>
                    <pf:general>
                        <pf:entryType>0</pf:entryType>
                        <pf:bpm>123.7346</pf:bpm>
                        <pf:genre>House</pf:genre>
                        <pf:year>2007</pf:year>
                        <pf:grouping />
                    </pf:general>
                    <pf:cuePoints>
                        <pf:cueIn>0</pf:cueIn>
                        <pf:fullLevel>0.049999999999999996</pf:fullLevel>
                        <pf:fadeOut>472.96402274956927</pf:fadeOut>
                        <pf:next>471.46402274956927</pf:next>
                        <pf:cueOut>478.96402274956927</pf:cueOut>
                    </pf:cuePoints>
                    <pf:volumePoints>
                        <pf:_0>
                            <pf:position>0</pf:position>
                            <pf:level>0</pf:level>
                        </pf:_0>
                        <pf:_1>
                            <pf:position>0.05</pf:position>
                            <pf:level>1</pf:level>
                        </pf:_1>
                        <pf:_2>
                            <pf:position>472.96401360544218</pf:position>
                            <pf:level>1</pf:level>
                        </pf:_2>
                        <pf:_3>
                            <pf:position>478.96401360544218</pf:position>
                            <pf:level>0</pf:level>
                        </pf:_3>
                        <pf:_4>
                            <pf:position>489.15</pf:position>
                            <pf:level>0</pf:level>
                        </pf:_4>
                    </pf:volumePoints>
                </pf:settings>
            </extension>
        </track>
        <track>
            <location>D:\My Music\Kaleidoscoipo - Tem Que Valer.mp3</location>
            <duration>227881</duration>
            <identifier>eeb745ca-d07f-48a4-bd93-6a2ec17810d7</identifier>
            <title>Tem Que Valer [Electro Bossa Mix]</title>
            <creator>Kaleidoscoipo</creator>
            <album>Tem Que Valer</album>
            <extension application="http://proppfrexx.radio42.com">
                <pf:settings>
                    <pf:general>
                        <pf:entryType>0</pf:entryType>
                        <pf:bpm>73.51606</pf:bpm>
                        <pf:genre>Chillout</pf:genre>
                        <pf:year>2004</pf:year>
                        <pf:grouping />
                    </pf:general>
                    <pf:cuePoints>
                        <pf:cueIn>0.056870748299319734</pf:cueIn>
                        <pf:fullLevel>0.16680272108843539</pf:fullLevel>
                        <pf:ramp>13.283968253968254</pf:ramp>
                        <pf:fadeOut>223.63574149659866</pf:fadeOut>
                        <pf:next>223.385306122449</pf:next>
                        <pf:cueOut>224.95374149659867</pf:cueOut>
                    </pf:cuePoints>
                    <pf:loopPoints>
                        <pf:_0>
                            <pf:type>1</pf:type>
                            <pf:start>0</pf:start>
                            <pf:end>0</pf:end>
                        </pf:_0>
                        <pf:_1>
                            <pf:type>1</pf:type>
                            <pf:start>0</pf:start>
                            <pf:end>0</pf:end>
                        </pf:_1>
                        <pf:_2>
                            <pf:type>1</pf:type>
                            <pf:start>0</pf:start>
                            <pf:end>0</pf:end>
                        </pf:_2>
                        <pf:_3>
                            <pf:type>0</pf:type>
                            <pf:start>0.25022675736961453</pf:start>
                            <pf:end>6.7563265306122453</pf:end>
                        </pf:_3>
                    </pf:loopPoints>
                    <pf:volumePoints>
                        <pf:_0>
                            <pf:position>0</pf:position>
                            <pf:level>0</pf:level>
                        </pf:_0>
                        <pf:_1>
                            <pf:position>0.056870748299319727</pf:position>
                            <pf:level>0</pf:level>
                        </pf:_1>
                        <pf:_2>
                            <pf:position>0.16680272108843539</pf:position>
                            <pf:level>1</pf:level>
                        </pf:_2>
                        <pf:_3>
                            <pf:position>223.63573696145124</pf:position>
                            <pf:level>1</pf:level>
                        </pf:_3>
                        <pf:_4>
                            <pf:position>224.95374149659864</pf:position>
                            <pf:level>0</pf:level>
                        </pf:_4>
                    </pf:volumePoints>
                </pf:settings>
            </extension>
        </track>
        <track>
            <location>D:\My Music\Show 33.mp3</location>
            <duration>7199974</duration>
            <identifier>c8eaa33a-5905-4c0d-8b5c-7786b18dd3bf</identifier>
            <title>Show 33  2011      Funk it up Radio Mix Show   2hr</title>
            <extension application="http://proppfrexx.radio42.com">
                <pf:settings>
                    <pf:general>
                        <pf:entryType>0</pf:entryType>
                        <pf:bpm>123.994019</pf:bpm>
                        <pf:rating>0</pf:rating>
                    </pf:general>
                    <pf:cuePoints />
                </pf:settings>
            </extension>
        </track>
        <track>
            <location>\My Music\Test.mp3</location>
            <duration>377313</duration>
            <identifier>b2359bdc-490d-4ff3-89f7-d93e9e4fa219</identifier>
            <title>Love Never Stops</title>
            <creator>Bs Album</creator>
            <album>Bs Album</album>
            <extension application="http://proppfrexx.radio42.com">
                <pf:settings>
                    <pf:general>
                        <pf:entryType>0</pf:entryType>
                        <pf:bpm>112.016</pf:bpm>
                        <pf:genre>Mein Genre</pf:genre>
                        <pf:year>2009</pf:year>
                        <pf:grouping />
                        <pf:rating>100</pf:rating>
                    </pf:general>
                    <pf:cuePoints>
                        <pf:cueIn>0.205</pf:cueIn>
                        <pf:fadeOut>372.57099999999997</pf:fadeOut>
                        <pf:next>374.942</pf:next>
                        <pf:cueOut>377.313</pf:cueOut>
                    </pf:cuePoints>
                    <pf:volumePoints>
                        <pf:_0>
                            <pf:position>0.205</pf:position>
                            <pf:level>1</pf:level>
                        </pf:_0>
                        <pf:_1>
                            <pf:position>372.57099999999997</pf:position>
                            <pf:level>1</pf:level>
                        </pf:_1>
                        <pf:_2>
                            <pf:position>377.313</pf:position>
                            <pf:level>0</pf:level>
                        </pf:_2>
                    </pf:volumePoints>
                </pf:settings>
            </extension>
        </track>
    </trackList>
</playlist>
```