- - SNASH: Configuration File Guide - -

Overview:

The SNASH application requires the use of a properly formatted XML configuration file, which will determine what metadata the user is prompted to enter. The XML file consists of a single config tag, which contains up to 100 total metadata and filename tags.

Each metadata tag must contain a name tag, and may optionally contain an alias tag, a both tag, and one of the three types of value tag. Any other tag will be ignored. Each filename tag must contain at least one of the name, alias, fixedValue, and specialValue tags. It may optionally contain a defaultValue tag or both tag, as well.

The value of any third-level tag must be comprised entirely of letters, numbers, and ASCII symbols. Specifically, the allowable characters are between ASCII values 32 and 126, inclusive. These tags also have a maximum of 50 characters.

First-Level Tags:

The <config> Tag:

The config tag is the root tag, containing up to 100 total metadata and filename tags.

Second-Level Tags:

The <metadata> Tag:

The metadata tag contains information of a field that is to be embedded into the audio file as metadata. It must have a name tag, and may contain any other third-level tag.

The <filename> Tag:

The filename tag contains information of a field that is to be part of the file's name. In order to get this data, the tag must contain at least one of following: a name or alias, or a fixed value or special value. If none of these tags are present, no data can be obtained, and the field will be skipped. It may also contain any other third-level tag. The filename will include these tags the order that they are written in the XML file.

Third-Level Tags:

The <both> Tag:

The both tag contains only the word "true", and indicates that the given field should be embedded both into the audio file's metadata and the file's name. This tag may be present under either a metadata tag or a filename tag- if it is in a filename field, the metadata fields' rules regarding the name tag apply.

The <name> Tag:

The name tag contains the name of the field to be embedded as metadata. This name will always be embedded as a sequence of 4 ASCII characters, and as such, any string of 4 ASCII characters is acceptable for this tag.

Some of these sequences can be read by audio programs as certain types of metadata. For example, the "IGNR" tag is read as "Genre." Therefore, it is also acceptable to type in the full names of some of these tags; SNASH will automatically convert them into the appropriate 4-character tag. A list of compatible tags can be found at this link, under the header "RIFF Info Tags."
https://exiftool.org/TagNames/RIFF.html#Info

Disclaimer: SNASH makes no guarantee that the tag IDs will correspond to the tag names listed on this website, as it is run by an unrelated party. Before distributing a configuration file using this feature, it may be prudent to test each tag you wish you use it with, to ensure the program you are using interprets it how you wish.

The <alias> Tag:

The alias tag contains the name of the field to be displayed to the user. This does not affect the audio file in any way; it only clarifies to the user what a particular field is supposed to represent. If there is no alias tag, the name tag will be displayed instead.

The Value Tags:

The fixed value, special value, and default value tags all determine what the value of the field should be. Only one of these tags should be used, as they are not compatible with each other. If more than one is present and valid, only one will take effect. The fixed value takes precedence if it is present, then the special value, then the default value. If none of the tags are present, the user will be prompted to enter the data for the field as normal.

The <fixedValue> Tag:

The fixed value tag contains a value for the given field, which will not be modifiable by the user. As such, the field will be embedded directly into the audio file without being presented to the user. This is useful for fields that should be exactly the same for every user, such as the name of an event the audio is being recorded for.

The <specialValue> Tag:

The special value tag denotes that the field should be calculated by the program. There are three options: time, date, and time zone. As the value is determined programmatically, this field is not presented to the user. If the special value tag is not one of these three options, this tag is ignored.

The <defaultValue> Tag:

The default value tag contains a default value for the given field, which will be modifiable by the user. The field will be included in the metadata entry form similar to a normal field, but will have the default value already in the entry box.

Configuration Errors:

If a configuration file does not conform to the rules written here, entering it into the program will cause a list of applicable warnings to show up. In most cases, a "dismiss warnings" button will allow the user to record audio anyway. If there is an error with the XML file itself (such as mismatched start and end tags), it will not be possible to use the configuration file as is. It is recommended to always try a configuration file yourself before distributing it, and fixing any warnings the program points out. Even if the user is allowed to use the configuration file, an error may cause the program not to work how you expect.

List of Errors:
- The configuration file has more than 100 metadata fields.
    - In this case, any field beyond the 100th will be ignored.
- A field has more than one type of value tag.
    - In this case, fixed values take priority, then special, then default.
- A field has more than one tag of the same type.
    - In this case, only the first tag is counted.
- A metadata field has no name tag.
- A metadata field has an invalid name tag.
- Two metadata fields have the same name tag.
- A filename field has no name, alias, fixed value, or special value.
- A filename field has a valid both tag, but no name tag.
    - In these cases, the field is ignored.
- A filename field has a fixed or default value with a character not allowed in filenames.
- A field's tag is empty.
- A field's tag has an invalid character.
- A field's both tag has anything other than the word "true".
    - In these cases, the tag is ignored.

Example XML:

```xml
<config>
    <filename>
        <alias>Filename Field 1</alias>
        <defaultValue>Default Value</defaultValue>
    </filename>

    <metadata>
        <name>FIXV</name>
        <fixedValue>Fixed Value</fixedValue>
    </metadata>

    <filename>
        <both>true</both>
        <name>FIMD</name>
        <alias>Filename and Metadata</alias>
    </filename>

    <metadata>
        <name>TIME</name>
        <specialValue>Time</specialValue>
        <both>true</both>
    </metadata>
</config>
```