

TFMX-Converter

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Chapter 1

TFMX-Converter

1.1 Summary

TFMX-Converter v1.0

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by

The Cyborg/N.G.C (Alexis NASR) ©95

[Doc \$VER:1.0.1 - 25 May 1995]

1. Introduction
2. Description of the interface
3. Description of the format
4. Conclusion

### 1.2 1. Introduction

#### 1. Introduction

Have you ever heard (adapted word :) of the TFMX Music-format?

"No":I don't believe you!Then Scratch this tool (spread it first ;-)

"Yes":Aaah...a good point!

Well If you like this format,you surely have noticed that besides its GREAT musical possibilities,the TFMX is somehow annoying to handle,for some reasons:

\* The files are split in mdat/smpl,so:

-That makes it REALLY an horror when you have to copy a few modules for friends!Have to browse in the dir to choose the corresponding smpl etc...seems nothing? Try with more than 10 mods & you'll see what I mean.

-Directory reading is awfully SLOW.(I have 134 modules=>268 files!!!)

-I don't like it this way \*:-)

\* Another problem is that this format includes the 1.5/Pro/7V formats in fact,

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and it is not always possible to distinguish these. Well, in the new TFMX Eagleplayers (available since EP1.54), Blackbird & myself tried to make the test routines as correct as possible, but since then, we got new modules, that were badly recognized. Once again, we fixed the test routines so everything is fine, but... BUT Chris Huelsbeck (the author of this master format) had made TFMX a 'secret' format, used only in games. That's why mostly all the modules that can be found come from games. That explains why there is NO 100% reliable sign that indicates the kind of the module.

An old 'TFMX-Tracker' ("TFMX-editor") had been released, but it was awfully bugged, and REALLY oooold. Maybe some people have tried to make their own editor, that could explain that some mods are rather weird, kind of hybrid structures between 1.5/7V etc...

All this to say that if new 'weird' TFMX modules are to come (which we do hope, anyway), it may happen that they aren't correctly recognized.

That's why this converter stores the TYPE (1.5/pro/7v) IN the module!

Much easier to recognize, eh? Most of time, automatic recognition will be OK, you'll just be able to 'force' the few badly detected mods.

(The only badly recognized module we've found is mdat.trsi [Pro] )

Note: recrunching these mods with SQSH won't make you lose noticeable space, even if you had all the mdats SHRI'd before... Anyway that surely didn't save megabytes! (When you see the size of the mdats!!).

So what?

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You surely won't have to use this Program often!!

In fact, I suppose you'll just use it now to convert all your mods, and once upon a time when you get new ones...

Anyway, I think the interface is far too nice considering the number of times you'll use it (once? ha ha ha). But I like making useless stuff (?) (UUUrgh ;-)

To use the new "TFMX." modules, you'll need the following Eagleplayers:

TFMX1.5: V1.9 (EP\_version= 6)

TFMX\_Pro: V2.36 15

TFMX\_7v V2.35 16

They're just the same players as in EP1.54, but I've added the support of the new format for loading & saving + some debugging etc...

(-->Files are saved in the same format as they were loaded)

I talked of Eagleplayer, but it is likely that this format will be also supported by Delitracker. And also all the other players (Hippoplayer, Emphy, etc) if their authors get a hand on this doc \*;-)

DISCLAIMER:

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\*\*\*\*\*

This program is FREEWARE.

I've heavily tested it and it seems quite Ok,but,remember that you use it at your own risks etc etc...('The author takes no responsibility' etc etc... just take any other program doc & read the usual disclaimer crap.I'm really fed up with this useless [again :) part)

## 1.3 2. The Interface

### 2. The Interface

This tool needs:

- OS 2.04+ (v37+)
  - Reqtools.library v38+ (ReqTools is © Nico François)
  - you should put TFMX-Converter in the list of xData's clients,if you want to decrunch files.
- so let's describe the gadgets:
- \* "Module type" cycle gadget

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When you convert modules (in whatever way,as you'll see later),it's THIS gadget that sets the kind of the module:

- Automatic Check:Classic!Uses the same recognition routines that in the corresponding Eagleplayers.(no surprise).It's the default and will fit in 99% of cases.
 - Force as 1.5/Pro/7V:guess what!When a module is badly recognized (You see it quickly:usually the player makes a Guru ;-),you can try with setting one of the 2 other TFMX-subformats.Easy,no?
 - Don't define.The module is defined as 'not checked',so that the players will use their own checkroutines.
- (With automatic-checked/forced modules,the players rely on this info and don't try to check by themselves)

NOTE: If you modify this gadget's state,do it BEFORE launching a conversion (I mean not during the source & destination files requesters seems logical,anyway,no? ;)

- * "Delete files"

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AFTER the conversion is done,the source modules are deleted.

Note:There is a kind of bug with xData,which made me lose half a day searching for a bug that didn't exist:If you use fast devices (HD,RAM:...),often the delay between loading-saving-deleting is very short,and xData still has locks

on the source file!!So,you see the problem?Yes,the deleting fails!When xData has finished (& removed its T: temporary files),everything would be Ok.

For example,deleting works with crunched files on FLOPPIES.Or uncrunched files on any device you want.(Am I clear? ;-).

[The fault is xData's!]

\* "Join MDAT. +SMPL. File(s) to TFMX."

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The most useful option,he he...

Choose the files to be converted,then a destination-directory.

The operations will then be performed (no pause option,sorry).

Note:All the paths of the requesters are memorized.

Note2:The modules types are set according to the cycle gadget.

Note3:All the files are saved UNCRUNCHED...You'll have to recrunch them.

(think about it when saving on small capacity devices like floppies:)

These notes apply for the all the converting-operations.

* Split TFMX. File(s) back to MDAT+SMPL

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May be useful if one day,the authors decide to release the editor (or maybe it's done already??)...So you can get back 'standard' modules.

(of course,the type gadget is useless here)

\* Modify a TFMX. module type

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For 'finetuning' moduletype :)

Note: 7v modules usually 'accept' being played as Pro (Wow,no GURU! :-))

1.5/Pro mods appreciate much less this kind of treatment!!

1.4 3. Description of the format

3. Description of the format

"format" is a big word,...

This part should interest only coders (and only Musicplayers/Rippers ones?)

Structure of the module:

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-TFMX Header

-MDAT data

-SMPL data

The TFMX Header structure is very simple:

RSRESET

TFhd\_head: rs.l 1 ;dc.l "TFHD" for recognition

```

TFhd_offset rs.l 1 ;dc.l TFhd_sizeof
TFhd_type: rs.b 1 ;module type :0/1/2/3 (bit 7=FORCED)
TFhd_version: rs.b 1 ;currently 0
TFhd_mdatsize: rs.l 1
TFhd_smplsize: rs.l 1
TFhd_sizeof: rs.w 0

```

Some details:

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* Please keep this nice & easy 'TFHD' (no "TfHd", "tfhd", etc...)

* TFhd_offset: here you should store the current TFHD_sizeof value. This is only for evolution purpose (very unlikely to happen!). Anyway DO FILL this field, and as explained later, NEVER assume the header has a fixed size (tfhd_sizeof). Always use the TFHD_offset size!

And if you want to extend the structure (??) PLEASE tell me about it. (No protracker-mess here! Now that TFMX has a kind of recognition, let's preserve it, no?)

* Tfhd_type:

1=1.5)

2=Pro) Quite easy, no?

3=7V)

0=Unchecked. I added this one, if for some reason you don't want or cannot check the type.

(For example, ExoticRipper just says 'TFMX1.5/pro/7v')

(Hi Marley!! Hope you'll use this format now)

If the format is FORCED, please set bit 7 (+128). It may be useful.

* "some pseudocode..." :

```
mdat_addr= ModuleAddr+(tfhd_offset)
```

```
smp1_addr= ModuleAddr+(tfhd_offset)+(tfhd_mdatsize)
```

Some examples:

Here is the TFMX_1.5 Checkroutine skeleton:

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This should make it clear enough.

TFMX\_Check:

```
SF TFHD_Flag ;internal flag:0=old else new
```

```
move.l DTG_ChkData(a5),a1 ;a1=Module address
```

```
move.l a1,a6
```

```
cmp.l #"TFHD",(a1)
```

```
bne.s .OLDMODULE ;not a 'TFMX.*' module :[
```

```

move.b tfhd_type(a1),d0
move.b d0,modtype
and.l #127,d0 ;clear the "Forced" flagbit
beq.s .NONCHECKEDMODULE ;is TFMX.* but unchecked type
cmp.b #1,d0 ;type 1=1.5
bne.s .err ;is TFMX.* & NOT the good type
ST TFHD_flag
bra.s .ok
.NONCHECKEDMODULE:
ST TFHD_flag
add.l tfhd_offset(a1),a1 ;now point on the mdat struct,
move.l a1,a6 ;so that checking is done
;[tfhd_offset rules!]
.OLDMODULE: moveq #-1,d0 ;checkroutine...
move.l a6,a0
cmpi.l #"TFMX",(a0)
bne.s .ChkEnd
move.l 6(a0),d0
move.b 5(a0),d0
ror.l #8,d0
cmpi.l #"SONG",d0
beq.s .ChkEnd
.ok: move.b #1,modtype
moveq #0,d0
.ChkEnd rts
.err: moveq #-1,d0
rts
TFHD_flag: dc.w 0
TFHD_adr: dc.l 0 ;init these after loading
TFHD_size: dc.l 0 ;
modtype: dc.b 0
even
How to get the addresses:
~~~~~
move.l TFHD_adr,a0
move.l a0,a1
move.l TFHD_size,d0
add.l tfhd_offset(a0),a1 ;now point on MDAT data
move.l a1,MDAT_adr

```

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move.l tfhd\_mdatsize(a0),mdat\_size  
 add.l mdat\_size(pc),a1 ;same for SMPL  
 move.l a1,smpl\_adr  
 move.l tfhd\_smplsize(a0),smpl\_size

Don't tell me it's hard :)

And if you modify a module before saving it,don't forget to set the corresponding TFHD\_type/mdatsize/smplsize fields...

Have fun!

## 1.5 4. Conclusion

### 4. Conclusion

I already spent too much time on this totally useless proggy...let's make it short!

Hello & Thanks fly to: (RANDOMIZE=ON)

\* Ian O'Connor for 'The Designer', which I use for all my GUIs.

Heu....Ian....could it be possible to add a \*correct\* font support?

:-) People are never happy eh? ;-)

\* Nico François for his superb library...Just a pleasure using it...

\* Buggs/Defect for his TFMX-Moral support etc etc..

(you too make nice letters,hehe ;-)

Use the converter & I'll use the Patternscroller Inverted mode!!! ;)

Usual advert (for free,yes yes) : "Eagleplayer forever!!"

\* Gryzor (haha t'as vu Nico? Moi aussi j'ai fait un convertisseur de mods...arf arf voui bon c'est sur que...sacré moi!)

\* Marley/Infect.What about includin' this format,uh?

\* F.Riffel & Peter Kunath (Delirium).

He he it seems you got new deliplayers (Hi Jon ;)

Woops!Delimix seems quite efficient (But you know what my prefs are,huhu) [what? 'Stubborn'? me?]

\* All the other members of NGC,specially the two other TFMX-madmen, Blackbird & Xelis of course! Hot thanx also to Xulax for his (as usual) very cute Icon.

\* Of course,and even if they don't give a damn and will probably never read these lines:Chris Huelsbeck & Jochen Hippel:  
 thank you both for this (these) excellent format!

Even if 'technically' the TFMX is 10 times better than the Protracker you made the editor available only to a few users...Of course as TFMX has far more options than the ptk,it's more complicated to

make tunes,but...don't worry,release the editor and I think you'll  
do lots of happy Musicians! (Here it is...I'm beginning to make  
strange dreams..tsss :)

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Ciao

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