

# Roll Documentation

## Introduction

The purpose of scanning century old player piano music rolls is archival preservation. The principal content is the perforations, the music itself. However, it makes little sense to scan the rolls without simultaneously capturing the roll data, partly from the roll label, and partly from an internet search. The process following is what I use, it works for me and is based upon a standard method of roll documentation.

The basic steps are:

- Scan the roll and generate a midi type 1 file
- Open the midi file in Cakewalk, then open its File Info area
- Paste a Keyword template into the File Info area
- Document from the roll label's data
- Repeat for all rolls in the batch
- Copy the midi files into c:\miditemp
- Execute "Keyword Lister", which creates "keyword.log"
- Open an empty Excel spreadsheet
- Drag "keyword.log" into the spreadsheet
- Edit the spreadsheet to define the batch at hand

## Utilites Needed

The software that I use for this purpose are:

- Cakewalk
- Keyboard Manager
- Microsoft Excel
- Keyword Lister

## The Keyword System

The Keyword system of documentation developed by Warren Tractman, Spencer Chase and others, is based on a fixed format for keywords, followed by variable roll data. The absolute minimum of keywords is as follows:

/music\_category: Piano\_Roll  
/title:  
/subtitle:  
/roll\_type:  
/roll\_manufacturer:

/roll\_number:  
/original roll #:  
/original manufacturer:  
/performer:  
/composer:  
/lyricist:  
/copyright:  
/scanned\_by:  
/scan\_system:  
/date\_scanned:  
/owner:

The format is - /keyword: followed by variable data.

The full Keyword system embraces a large number of keywords, but is flexible enough to allow custom keywords. They are all available for viewing on the IAMMP site at:

<http://www.trachtman.org/rollscans/keywords.htm>

Some basic Keyword Definitions:

/music\_category: Piano\_Roll

/title: Roll title as shown on the roll label

/subtitle: Additional roll title data such a source of the tune

/roll\_type: Generic, Ampico, Duo-Art, Welte, etc.

/roll\_manufacturer: Ampico, Duo-Art, Imperial, QRS, Supertone, Welte, etc.

/roll\_number: Catalog Number, as it appears on the roll or roll box, minus the price code

/original roll #: If known and if the roll is a recut.

/original manufacturer: If known and if the roll is a recut.

/performer: Artist, surname first

/composer: Composer, surname first

/lyricist: Lyricist, surname first

/copyright: copyright year of the composition

/scanned\_by: Person scanning the roll

/scan\_system: MK3, MK3a, MK3b, Rollscan-1, Custom, etc.; with encoder if equipped

/date\_scanned: Date the roll is scanned

/owner: Owner or donor of the roll

## Keyboard Manager

I use Keyboard Manager to setup a unique keystroke to insert the Keyword Template. Install KM, then open it so that the keyboard layout is displayed on screen. Hit “Alt-T” (my choice of keystrokes to insert the template). An edit screen will open. Using the Clipboard, paste the minimum template into this edit box. Hit “Apply”, and it will be saved.

## Cakewalk

Midi files have within them an “info” area. In Cakewalk, this may be access by clicking on File/Info. It will look like this:

In A Corner Of The World - 2194S.mid - File Info

Title:  Stats...

Subtitle:

Instructions:

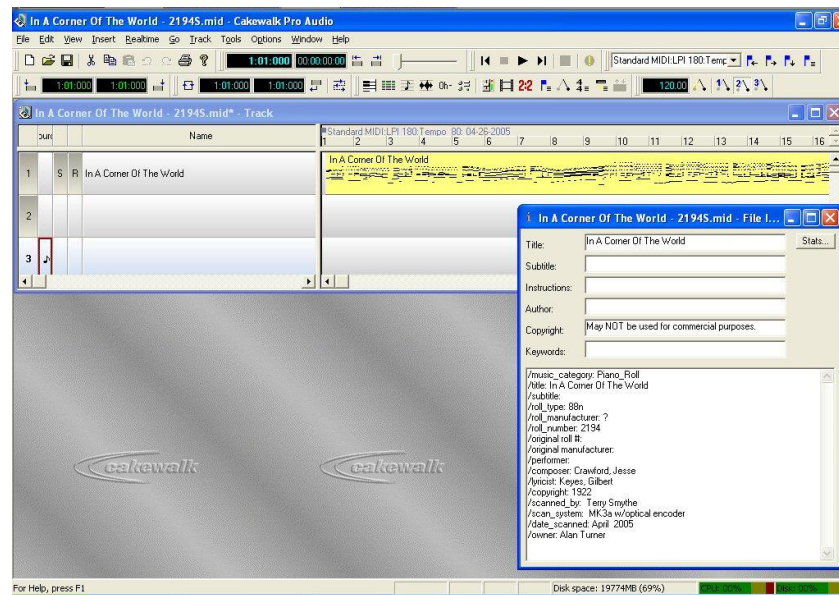
Author:

Copyright: May NOT be used for commercial purposes.

Keywords:

/music\_category: Piano\_Roll  
/title:  
/subtitle:  
/roll\_type:  
/roll\_manufacturer:  
/roll\_number:  
/original roll #:  
/original manufacturer:  
/performer:  
/composer:  
/lyricist:  
/copyright:  
/scanned\_by: Terry Smythe  
/scan\_system: MK3a w/optical encoder  
/date\_scanned: April 2005  
/owner: Alan Turner

After insertion of known roll data from the label, it will look like this:



There are no doubt other midi editors out there that facilitate opening the “Info” are, allowing insertion of this text data. I did not select Cakewalk. I just happened to have it, so chose to use it.

This process gets the roll documentation into the midi file. It is better to insert this data into the “Info” area, rather than individual tracks, as I once did in my earlier scans. Data in the “Info” area will survive conversion into midi type 0 files for use on solenoid pianos.

## Spreadsheet Listing

To migrate the data contained within the “Info” area of a midi file, into a spreadsheet type listing, Spencer Chase kindly wrote a little utility for me which he calls, “Keyword Lister”. It must reside in a directory off c:, called c:\miditemp.

To use it, I copy my current batch of midi files into c:\miditemp, then execute “Keyword Lister”. It will open as follows:

```
C:\Miditemp\Midi_Keyword_Lister.exe

This program will list all values from keyword / value pairs
found in MIDI type 1 text events.

A pair is composed of a line
beginning with "/" and containing a ":" between key and value.
The log file will be tab delimited between keyword values.
One line will be used for each file.
All keywords found in all files will be listed.
All files to be listed must be in
the folder specified.

Default directory is C:\Miditemp
Enter new directory path or "enter" to keep default.

-
```

Keyword Lister will find all the midi files in the directory, then reach into each and extract the data in “tab delimited” format, and build a file containing this data. The output file is called “keyword.log”. Each time Keyword Lister is run, it’s output file “keyword.log” will overwrite the previous file. It will finish up looking like this:

```

C:\Miditemp\Midi_Keyword_Lister.exe
ID: MThd, LEN: 6, FORMAT: 1, TRACKSEXP: 2 <BR>
TICKS: 192 <HR>TYPE: MTrk, HEADER: MTrk <BR>TYPE: MTrk, HEADER: MTrk <E <BR>

Files listed, 2
ID: MThd, LEN: 6, FORMAT: 1, TRACKSEXP: 2 <BR>
TICKS: 192 <HR>TYPE: MTrk, HEADER: MTrk 9? <BR>TYPE: MTrk, HEADER: MTrk 9? <BR>

Files listed, 3
ID: MThd, LEN: 6, FORMAT: 1, TRACKSEXP: 2 <BR>
TICKS: 192 <HR>TYPE: MTrk, HEADER: MTrk 00 <BR>TYPE: MTrk, HEADER: MTrk G0 <BR>

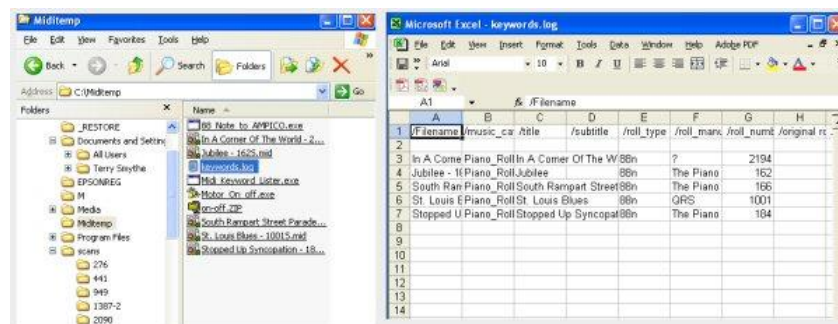
Files listed, 4
ID: MThd, LEN: 6, FORMAT: 1, TRACKSEXP: 2 <BR>
TICKS: 192 <HR>TYPE: MTrk, HEADER: MTrk 01 <BR>TYPE: MTrk, HEADER: MTrk 8v <BR>

Files listed, 5
Log file C:\Miditemp\keywords.log created.

Hit enter to close program

```

The resulting “keyword.log” file can then be dragged into an empty new Excel spreadsheet. I use Excel only because I already have it. I suspect other spreadsheet software will behave similarly. Here’s what it looks like after dragging the file across. Being in tab-delimited form, the data is automatically dropped into columns bearing the keyword itself as a column heading.



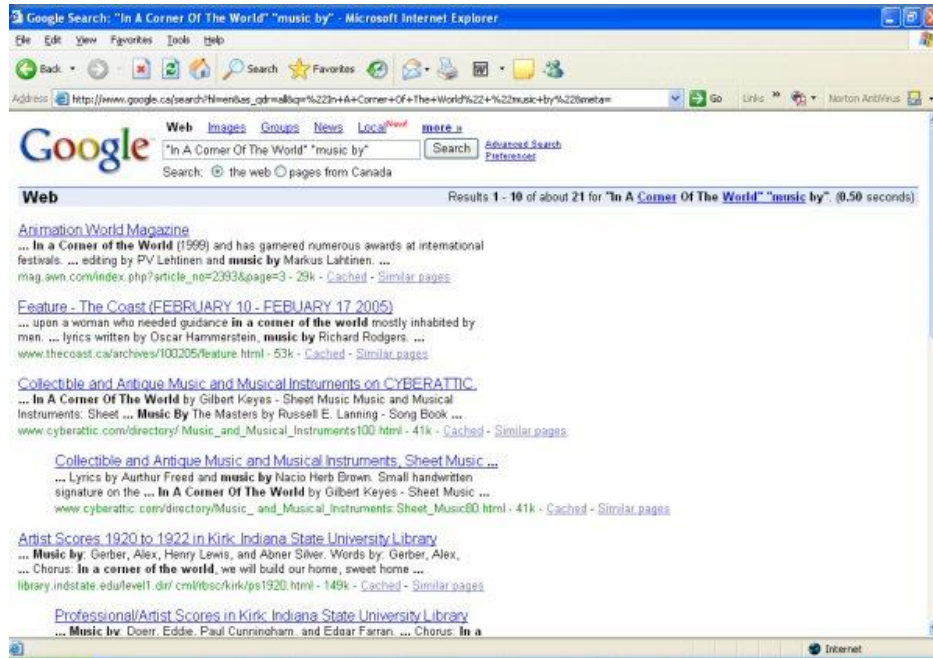
Both Windows’ Explore File Manager and Excel must be open side by side to facilitate dragging. Following the “drag”, the midi files within c:\miditemp may be deleted. Open the spreadsheet full screen, then edit to suit and “Save As” in an xls format with a name of your choice.

The final result is a midi file containing roll data, and a spreadsheet listing of the batch of midi files.

## Google Advanced Search

Many roll labels are missing important data such as composer or artist. Sometimes, these labels list only a single name which might be either the artist or composer.

Sometimes this data is in error. An internet search under Google Advanced Search will very often find data for that tune, such as “music by”, “lyrics by” and “copyright year”, data not always contained on a roll label. Such a search might look like this:



## Alternate Roll Documentation

What I’ve outlined here is the process I use. It is driven in part by my practice of making my midi files freely available on my web site. Each batch is accompanied by a spreadsheet listing as an aid to those downloading the batches. General public is not always aware that roll documentation is contained within each midi file.

Warren Tractman has developed a first rate utility “CISConverter” which will open a .CIS file and convert it directly into an e-roll, and all this roll data will be incorporated into the “Info” area of the midi file. His utility incorporates not only data off the roll label, but also a great deal of additional information extracted from the scanning process itself. It is an excellent utility and may be downloaded from:

[IAMMP Website](#)

RollScanConverter

## **Conclusion**

Roll scanning by itself is an incomplete process. The objective is archival preservation. While player pianos themselves can be repeatedly restored into perpetuity, the music rolls upon which they depend cannot be restored. It has become critically important to capture the content of these century old music rolls while still possible. The process is an important contribution to a unique slice of our musical heritage.

Enjoy!

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