Humdrum data / data input

craigsapp@stanford.edu

17 April 2013
KernScores
http://kern.humdrum.org

• List of more substantial data collections:
  http://kern.humdrum.org/help/data

• List of location shortcuts:
  http://kern.humdrum.org/cgi-bin/kscuts

• Browse data collections:
  http://kern.humdrum.org/browse
Downloading from KernScores

(1) Individual Humdrum files from “H” button on browse pages
(2) Individual Humdrum files form work-info pages
(3) Multiple files from a browse page by clicking on “Z” button near top of page.
(4) Recursive page download for multiple pages: “Z” higher up on some pages.

(5) Download with Humdrum Extras programs.
(6) All Humdrum Extras programs can download from the command line:

```
  humcat h://chopin/preludes/prelude28-01.krn | less
  humcat h://chopin/preludes/prelude28-01.krn | census -k
  transpose -k G h://chopin/preludes/prelude28-01.krn | census -k
```

(7) All files at a location can be downloaded at the same time:

```
  humcat -s h://chopin/preludes | census -k
```

“-s” option is needed with humcat when downloading multiple files since it will otherwise try to stitch them into a single segment.
humsplit program can split out files from a multi-segment stream. Here is an efficient method for downloading Well-Tempered Clavier Book I:

```
humcat -s h:/wtc1 | humsplit ls
```

```
wtc1f01.krn  wtc1f13.krn  wtc1p01.krn  wtc1p13.krn
wtc1f02.krn  wtc1f14.krn  wtc1p02.krn  wtc1p14.krn
wtc1f03.krn  wtc1f15.krn  wtc1p03.krn  wtc1p15.krn
wtc1f04.krn  wtc1f16.krn  wtc1p04.krn  wtc1p16.krn
wtc1f05.krn  wtc1f17.krn  wtc1p05.krn  wtc1p17.krn
wtc1f06.krn  wtc1f18.krn  wtc1p06.krn  wtc1p18.krn
wtc1f07.krn  wtc1f19.krn  wtc1p07.krn  wtc1p19.krn
wtc1f08.krn  wtc1f20.krn  wtc1p08.krn  wtc1p20.krn
wtc1f09.krn  wtc1f21.krn  wtc1p09.krn  wtc1p21.krn
wtc1f10.krn  wtc1f22.krn  wtc1p10.krn  wtc1p22.krn
wtc1f11.krn  wtc1f23.krn  wtc1p11.krn  wtc1p23.krn
wtc1f12.krn  wtc1f24.krn  wtc1p12.krn  wtc1p24.krn
```
Downloading (3)

- Multiple works can be saved in a single file rather than split from multi-segment stream:

  ```sh
humcat -s h://wtc1f > wtc1fugues.krns
census -k wtc1fugues.krns
```

  ```sh
humcat -s h://wtc1p > wtc1preludes.krns
census -k wtc1preludes.krns
```

- It is wise to save a repertory locally as shown above in order to speed up processing multiple times as well as avoid lack of data if web server is down or other network problems.
Some repertories

humcat –s h://beethoven/sonatas > beethoven-piano-sonatas.krns
humcat –s h://haydn/sonatas > haydn-piano-sonatas.krns
humcat –s h://mozart/sonatas > mozart-piano-sonatas.krns
humcat –s h://scarlatti/sonatas > scarlatti-piano-sonatas.krns
humcat –s h://mozart/quartets > mozart-string-quartets.krns
humcat –s h://beethoven/quartets > beethoven-string-quartets.krns
humcat –s h://haydn/quartets > haydn-string-quartets.krns
humcat –s h://chopin/preludes > chopin-preludes.krns
humcat –s h://hummel/preludes > hummel-preludes.krns
humcat –s h://chopin/mazurkas > chopin-mazurkas.krns
humcat –s h://liederschatz > liederschatz.krns
humcat –s h://joplin > joplin-rags.krns
humcat –s h://chorales > jsbach-370chorales.krns
humcat –s h://brandenburg > jsbach-brandenburg-concertos.krns
humcat –s h://folk/china > chinese-folksongs.krns
humcat –s h://folk/germany > german-folksongs.krns
humcat –s h://inventions > jsbach-inventions.krns
humcat –s h://haydn/sym > haydn-symphonies.krns
humcat –s h://wtc > jsbach-wtc.krns
humcat –s h://tonerow > tonerows.krns

census –k *.krns
Number of notes: 2310595
Josquin Research Project

http://jrp.ccarh.org

- Downloading individual files, titles and file extension are optional:
  humcat jrp://Jos2721

- Downloading by composer:
  humcat –s h://jrp/Jos
  humcat –s h://jrp/Ock

- Downloading by genre (all composers):
  humcat –s h://jrp/Zma (masses)
  humcat –s h://jrp/Zmo (motets)
  humcat –s h://jrp/Zso (secular songs)
Scanning / Notation Editor

- Sharpeye → MusicXML → Humdrum

SharpEye:

http://www.visiv.co.uk (windows only; 30-day free trial)

http://wiki.ccarh.org/wiki/Epson_GT-15000_Scanner
http://wiki.ccarh.org/wiki/Sharpeye
http://extras.humdrum.org/man/hum2xml

- MuseScore, Noteflight, Finale, Sibelius all have MusicXML output.
  - Duration of every part has to be identical
  - Under/Overfilled measures not allowed
MIDI input

- Most generalized method: load MIDI file into Finale/Sibelius and then export as MusicXML and convert with xml2hum.

- Basic tool for converting from MIDI directly into Humdrum: mid2hum
  if that does not work, then use method above.