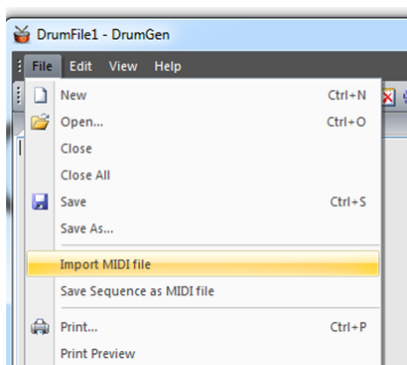# Importing a MIDI Song into DrumGen is Simple

Free General MIDI songs can be found on the Web for pop, rock, jazz, and every other style of music.  In this tutorial we will import *Cut the Cake* by Average White Band into Drumgen.  The MIDI song file is found on *midiworld.com*.

Downloading and clicking on a **\*.mid** file in Windows may cause it to automatically launch Windows Media Player, iTunes, or some other media player that is the default program associated with the ".mid" file extension.  Typically, the song will play back using the built-in MIDI synthesizer, which in recent versions of Windows is called **Microsoft GS Wavetable Synth**.



## Importing *Cut the Cake* into DrumGen

Importing a MIDI song into DrumGen converts the MIDI file into a corresponding textual drum program.  Just drag the .mid file over the DrumGen window, or use the *File - Import MIDI file* menu item.
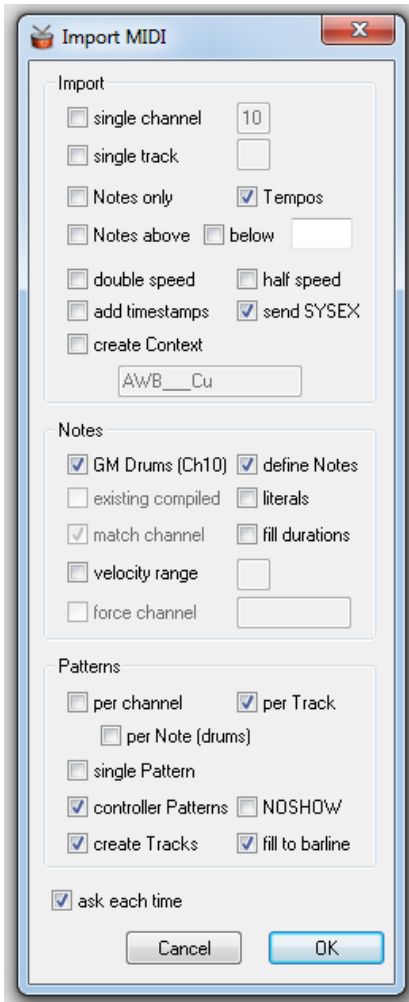


The resultant drum program allows the user to:

- view and navigate the song in music notation in the Staff view while playing back

- arrange the song for accompaniment or overdub recording

See the DrumGen User Manual appendix section *Importing MIDI Songs Example* for more details.

When we import **Average_White_Band__Cut_the_Cake.mid**, we must make some selections within the *Import MIDI* dialog to guide the process.



In this example, our goal is to produce a readable Staff view so we can follow along during playback. Following are some comments on the dialog selections.

**GM Drums** - most MIDI files on the Web are General MIDI with drums on channel 10. With this selection, the note names used for channel 10 will be familiar GM drum names, typically found in a single track in the MIDI file.
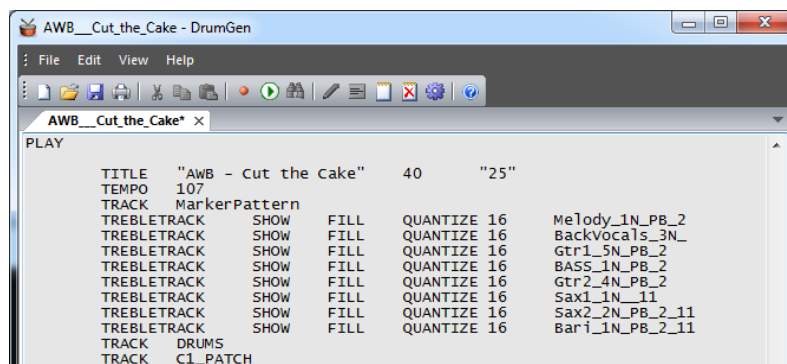
**per Track** - many, if not most, GM MIDI files contain a single track for each instrument; the track's MIDI messages furthermore use a single MIDI channel corresponding to the instrument.

**controller Patterns** - continuous controller messages are split out into separate Patterns. This gives flexibility in displaying such Patterns in the Staff view.

**create Tracks** - instead of creating a single master Pattern for the song, this creates a separate Track for each Pattern, giving flexibility in Staff view display.
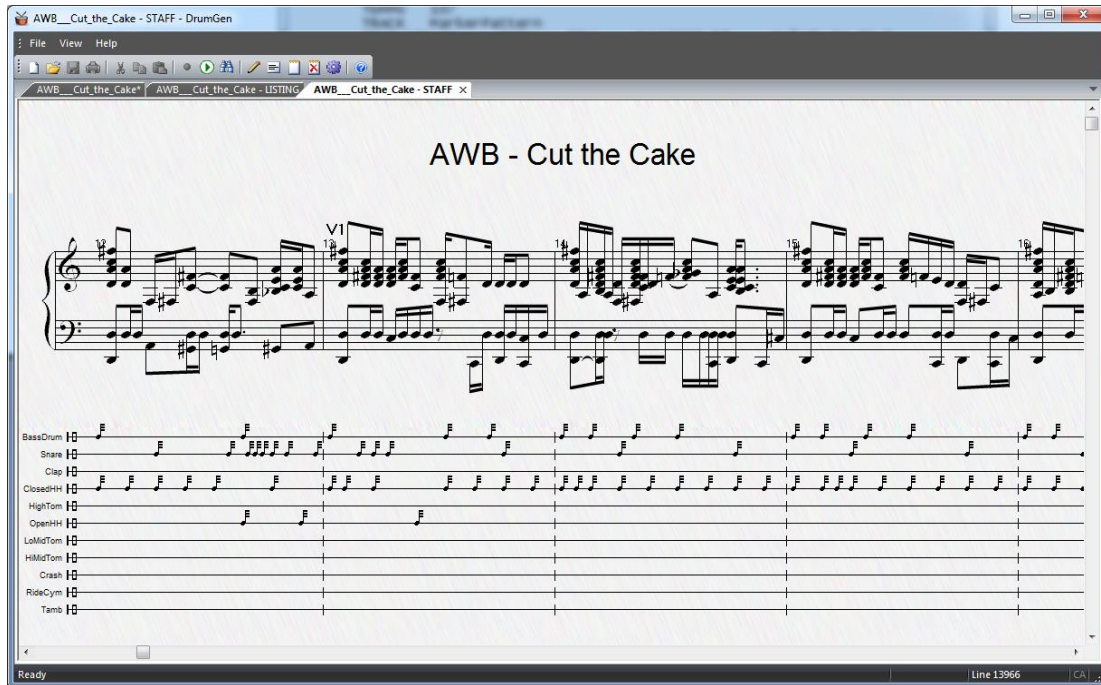
**Fill to barline** - extend each Pattern to end on a full barline, if needed.

The Play Section of the resultant drum program is shown below. The import operation determined that some imported MIDI file tracks were for melodic instruments destined for the piano staves and therefore created **TREBLETRACKs** for them; otherwise (for drum tracks or continuous controllers) it created **TRACKs**. [The import operation may have been wrong in its assessment and the user can change the Track type if needed.]

When we compile this drum program, we can now play it back, making sure DrumGen's MIDI output points to Microsoft GS Wavetable Synth or some other General MIDI device (click on the Settings gear icon).

However, the Staff view could use some improvement.



## Formatting the Staff View

We will make some quick changes to the *Cut the Cake* drum program to declutter and otherwise improve the Staff view. A few minutes of editing usually yields a pleasing Staff view for any MIDI file downloaded from the Web.
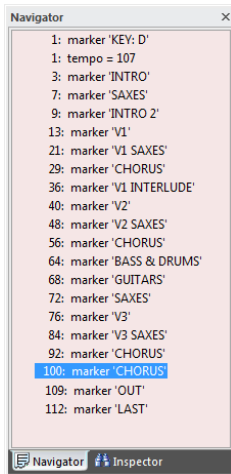
To create more whitespace in the Staff view, we will use the **Staff** statement. The import operation creates the following by default (see the DrumGen User Manual for details on the Staff statement):

```
STAFF "NOCONTROLLERS NOPATCHES NOPITCHBENDS NOPRESSURES
       PIANOSTAFF 150 DRUMSTAFF 230"
```

Changing the vertical placement of the staves. We will change `PIANOSTAFF 150` to `PIANOSTAFF 180` in order to push the piano staves a little further down from the top of the view, which will make more room for the song title and markers. In tandem we will change `DRUMSTAFF 230` to `DRUMSTAFF 270` to add a bit more vertical whitespace between the piano staves and the drum staves.

```
STAFF "PIANOSTAFF 180 DRUMSTAFF 270"
```

<u>Markers</u>.  The ***Cut the Cake*** MIDI file contains MIDI markers.  Markers are often used to indicate and locate new verses or sections of the song.



Markers are imported into a Pattern `MarkerPattern` in the drum program, and after compiling, are shown in the Navigator, where they can be clicked to change the playback position of the song.

Markers are also shown in the Staff view, and in this case, the default vertical placement of the markers makes some of them hard to see.



We can control their vertical placement with:

        STAFF "MARKERS 140"

This will place them so we can see them - 140 pixels from the top of the view.

<u>Notes in the Bars</u>.  In this drum program the bars are crowded with notes (some songs are that way). The notes will be easier to see if we expand the horizontal width of the bars displayed in the Staff view with:

        STAFF "BARWIDTH 1"

<u>Title</u>.  The import operation creates a default title, in this case:

        TITLE "AWB - Cut the Cake"     40     "25"

We can improve on this, and add a subtitle as well, for example:

        TITLE        "Cut the Cake"                    40     "Impact-35"
        SUBTITLE     "~~ Average White Band ~~"     90     "18"



If your PC does not have the `Impact` font, pick some other interesting font.

<u>Displaying Tracks in the Piano Staff</u>.  Since we specified **create Tracks** in the *Import MIDI* dialog, the drum program contains:

```
TREBLETRACK SHOW   FILL   QUANTIZE 16 Melody_1N_PB_2
TREBLETRACK SHOW   FILL   QUANTIZE 16 BackVocals_3N_
TREBLETRACK SHOW   FILL   QUANTIZE 16 Gtr1_5N_PB_2
TREBLETRACK SHOW   FILL   QUANTIZE 16 BASS_1N_PB_2
TREBLETRACK SHOW   FILL   QUANTIZE 16 Gtr2_4N_PB_2
TREBLETRACK SHOW   FILL   QUANTIZE 16 Sax1_1N__11
TREBLETRACK SHOW   FILL   QUANTIZE 16 Sax2_2N_PB_2_11
TREBLETRACK SHOW   FILL   QUANTIZE 16 Bari_1N_PB_2_11
```

Right now, all of the notes of these tracks are displayed on the piano staff (SHOW).  By default, the import operation attempts to declutters the piano staff notes in the Staff view with several Track modifiers, FILL and QUANTIZE 16.

```
TREBLETRACK SHOW   FILL   QUANTIZE 16 Melody_1N_PB_2
```

These modifiers do not affect the playback of notes and can of course be adjusted by the user.

But perhaps we could have a more pleasing, less cluttered Staff view by **not** displaying some tracks (NOSHOW).  After some experimentation, we decide to display the melody, bass and sax parts and not the others.

```
TREBLETRACK SHOW       FILL   QUANTIZE 16 Melody_1N_PB_2
TREBLETRACK NOSHOW     FILL   QUANTIZE 16 BackVocals_3N_
TREBLETRACK NOSHOW     FILL   QUANTIZE 16 Gtr1_5N_PB_2
BASSTRACK   SHOW       FILL   QUANTIZE 16 BASS_1N_PB_2
TREBLETRACK NOSHOW     FILL   QUANTIZE 16 Gtr2_4N_PB_2
TREBLETRACK SHOW       FILL   QUANTIZE 16 Sax1_1N__11
TREBLETRACK SHOW       FILL   QUANTIZE 16 Sax2_2N_PB_2_11
TREBLETRACK SHOW       FILL   QUANTIZE 16 Bari_1N_PB_2_11
```

We've also changed the TREBLETRACK to a BASSTRACK for the distinctive funky bass part. This looks better, but now there are no notes displayed for the Intro.  We can rectify this by displaying just the first few bars of Pattern Gtr1_5N_PB_2:

```
TREBLETRACK SHOW   FILL   QUANTIZE 16 Gtr1_5N_PB_2
```
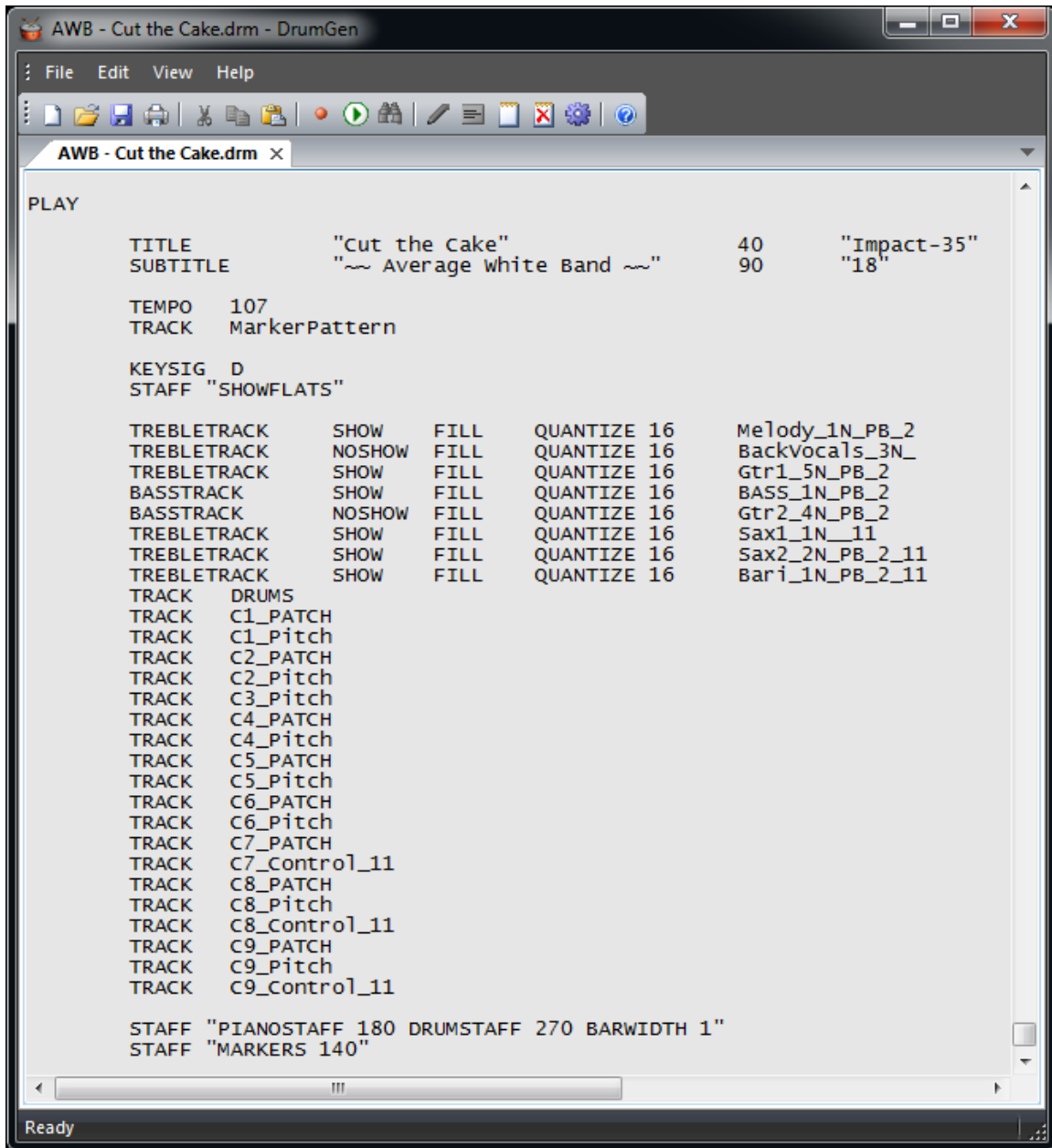
and inside the Pattern itself, we will 'turn off' the display at the end of the Intro (Bar 7):

```
PATTERN Gtr1_5N_PB_2  {
    ...
    C4_Note_A5  16:8 DOT     80
    REST         4 TIE 16
NOSHOW
    // *** Bar 7 ***
    C4_Note_F5  :8      70
    C4_Note_A5  :8      70
    C4_Note_B4  :8      70
    C4_Note_D6  8       70
```

<u>Key Signature</u>.  Finally, the song indicates that it is in the key of D.  We also notice that it uses G minor consistently, so we prefer to spell enharmonic notes with flats.

```
KEYSIG       D
STAFF        "SHOWFLATS"
```

The final result is:

```
AWB - Cut the Cake.drm - DrumGen

File   Edit   View   Help

AWB - Cut the Cake.drm  ×

PLAY

        TITLE              "Cut the Cake"                    40       "Impact-35"
        SUBTITLE           "~~ Average White Band ~~"        90       "18"

        TEMPO    107
        TRACK    MarkerPattern

        KEYSIG  D
        STAFF "SHOWFLATS"

        TREBLETRACK        SHOW      FILL      QUANTIZE 16      Melody_1N_PB_2
        TREBLETRACK        NOSHOW    FILL      QUANTIZE 16      BackVocals_3N_
        TREBLETRACK        SHOW      FILL      QUANTIZE 16      Gtr1_5N_PB_2
        BASSTRACK          SHOW      FILL      QUANTIZE 16      BASS_1N_PB_2
        BASSTRACK          NOSHOW    FILL      QUANTIZE 16      Gtr2_4N_PB_2
        TREBLETRACK        SHOW      FILL      QUANTIZE 16      Sax1_1N__11
        TREBLETRACK        SHOW      FILL      QUANTIZE 16      Sax2_2N_PB_2_11
        TREBLETRACK        SHOW      FILL      QUANTIZE 16      Bari_1N_PB_2_11
        TRACK    DRUMS
        TRACK    C1_PATCH
        TRACK    C1_Pitch
        TRACK    C2_PATCH
        TRACK    C2_Pitch
        TRACK    C3_Pitch
        TRACK    C4_PATCH
        TRACK    C4_Pitch
        TRACK    C5_PATCH
        TRACK    C5_Pitch
        TRACK    C6_PATCH
        TRACK    C6_Pitch
        TRACK    C7_PATCH
        TRACK    C7_Control_11
        TRACK    C8_PATCH
        TRACK    C8_Pitch
        TRACK    C8_Control_11
        TRACK    C9_PATCH
        TRACK    C9_Pitch
        TRACK    C9_Control_11

        STAFF "PIANOSTAFF 180 DRUMSTAFF 270 BARWIDTH 1"
        STAFF "MARKERS 140"

Ready
```