

MIDI Christmas

Christmas is a time for celebration; celebration of family, blessings, and most of all, celebration of giving. The symbolic gesture of giving at Christmas may come from two examples of giving as illustrated in the story of Christmas. The first example may be the more obvious to most, where the three traveling wise men bring gifts for the new born King. The more important gift, however, is the gift to the human race of the Messiah.

No matter what your religious or spiritual beliefs are, there is little doubt that the Christmas story has had a profound impact on humanity. This influence ranges from the political to the personal, to every corner of the globe, even to our everyday lives, since our Western calendar marks the years since the birth of Christ.

The music in this collection includes favorites from both secular and sacred music for the season. Below is a table of filenames with corresponding titles for each piece. A brief description of each piece follows. As with most traditional music, there is usually an interesting story behind the music. Since Christmas is celebrated around the world, Christmas music from Africa and Mexico, as well as American Black spirituals and eastern European carols have been included. Christmas is for everyone.

We hope you enjoy this collection and that it will bring holiday cheer to you and your computer.

Filename	Title
ANGELSW.E.MID	Angels We have Heard on High
AULDLANG.MID	Auld Lang Syne
AWAYMANG.MID	Away in a Manger
C-ISHERE.MID	Christmas Is Here
COVENTRY.MID	Coventry Carol
DECKHALL.MID	Deck the Hall
FIRSTNOE.MID	The First Noel
FOR-UNTO.MID	For Unto Us a Child is Born (from The Messiah)
GODREST.MID	God Rest Ye Merry Gentlemen (Greensleeves)
GOTELLIT.MID	Go Tell It on the Mountain
HALLELUJ.MID	Hallelujah Chorus (from The Messiah)
HARKHERA.MID	Hark the Herald Angels Sing
HOLLYIVY.MID	The Holly and the Ivy
HOLYNITE.MID	Oh Holy Night
IHRDBELL.MID	I Heard the Bells on Christmas Day
ISAW3SHP.MID	I Saw Three Ships
ITCAMEUP.MID	It Came Upon a Midnight Clear
JINGLE-B.MID	Jingle Bells
JOLLYSTN.MID	Jolly Old Saint Nicholas
JOYTOWLD.MID	Joy to the World
LA_POSAD.MID	Las Posadas (Mexican Christmas Song)
LIT-TOWN.MID	O Little Town of Bethlehem

MARYHADB.MID	Mary Had a Baby
OCOME-EM.MID	O Come, O Come, Emmanuel
OCOMEALL.MID	O Come All Ye Faithful
SHOESFOR.MID	Shoes for Baby Jesus (Zapatos para el Nino Jesus)
SILENTNI.MID	Silent Night
SINGHALL.MID	Sing Hallelu
SINGNOEL.MID	Sing Noel
SINGWEAL.MID	Sing We All Noel
TANBAUM.MID	O Tannenbaum, O Tannenbaum (O Christmas Tree)
UPONHOUS.MID	Up On the Housetop
WASSAIL.MID	Wassail
WE3KINGS.MID	We Three Kings
WEWISHU.MID	We Wish You a Merry Christmas
WHATCHILD.MID	What Child is This?

Angels We Have Heard on High is a French carol, arranged here for brass and organ. As is apparent in this collection, the French wrote many carols for the season. This carol was first published in the mid 19th century.

Auld Lang Syne, while not a Christmas song, is included here because of its association with New Years Eve, which is one week after Christmas. This Scottish song is commonly used for reunions and other sentimental occasions, as well as for New Year's Eve celebrations.

Away in a Manger is a long time favorite of children. Though Martin Luther is attributed with its composition, this has been disputed. The text was first published in the mid 19th century in Philadelphia.

Christmas is Here is a Christmas folk song from Sweden.

Coventry Carol is an English melody from the sixteenth century. The text was written by Robert Croo.

Deck the Hall was taken from a Welsh air. Its text indicates that it originated in early times in the British Isles.

The First Noel is another traditional carol based on an English tune. It was first published in 1833 by William Sandys in his Christmas Carols, Ancient and Modern.

For Unto Us a Child is Born is a chorus from George Frideric Handel's masterpiece, The Messiah. The text is taken from the Bible, the book of Isaiah, chapter 9, verse 6. The Messiah is remarkable in several respects. It has endured as one of the most performed, recorded, and listened to works in the classical repertoire. More remarkable, however, is that this work was written in twenty four days. Since it consists of fifty three sections, one can imagine the labor involved in composing it in just over three weeks. The

soprano, alto, tenor, and bass parts have been assigned double-reed instruments (oboe, English horn, and bassoon) in this transcription.

God Rest Ye Merry Gentlemen is another old English melody. It dates from the 18th century, and was first published in 1827.

Go Tell It on the Mountain is a Black spiritual from the United States. Spirituals were made popular in the years following the Civil War by choirs from colleges built to educate Black students.

Hallelujah is a chorus from George Frideric Handel's Messiah. This melody is well known to most, and is a favorite at both Christmas and Easter.

Hark the Herald Angels Sing was written by Felix Mendelssohn in 1840, The text by Charles Wesley, was written in 1739, and adapted to the music by W.H. Cummings in 1855.

The Holly and the Ivy is another old French Christmas tune.

I Heard the Bells on Christmas Day is from the mid 19th century. Text is by Henry Wadsworth Longfellow and music was written by J. Baptiste Calkin. Although this song was written over 100 years ago, its words still hold a message of hope today.

I Saw Three Ships is a traditional English tune, which refers to the "ships of the desert" ridden by the three wise men.

It Came Upon a Midnight Clear was written by Richard Willis, with text by Edmund Sears, and was written in the mid 19th century.

Jingle Bells is one of the most popular children's Christmas songs. It was written in the 19th century by James Pierpont.

Jolly Old Saint Nicholas is a traditional American song from the 19th century.

Joy to the World was written by Lowell Mason, with text by Isaac Watts. The music was previously attributed to George Frideric Handel, but it has recently been discovered that Lowell Mason is actually the composer.

Las Posadas, or The Mexican Christmas Song, is a traditional song used in a procession from home to home, seeking shelter. This melody is also known as El Nombre del Cielo.

Mary Had a Baby is a Black spiritual from the United States.

O Come, O Come Emmanuel is an ancient hymn, with original text in Latin. The text dates from the 9th century and the music is from the 13th century. The English translation is provided below.

O Come All Ye Faithful, also known as *Adeste Fideles*, has been attributed to at least two different composers. Research has led musicologists to attribute it to J.F. Wade, an Englishman who lived in Douay, France, in the 18th century.

O Holy Night was written by Adolphe Charles Adam, with English text by John Sullivan Dwight. Adam is best remembered for his ballet, *Giselle*.

O Little Town of Bethlehem was written by Lewis Redner in Philadelphia in 1868. The text is by Phillips Brooks.

O Tannenbaum is a German tune, which has also been sung as *O Christmas Tree* and *O Faithful Pine*. It is a very old German song, based on the centuries old German tradition of decorating an evergreen. Its melody is also used for several state songs in the United States.

Silent Night was written by Franz Gruber, with text by Joseph Mohr. Mohr was a local Catholic priest in the tiny Austrian village where Franz Gruber lived. *Silent Night* was written originally for tenor, bass, and two guitars.

Sing Hallelu is another American Black spiritual.

Sing Noel is a round from Liberia. Although meant for voices (as are all these works), a shakuhachi is used here.

Sing We All Noel is a very old French carol.

Up On the Housetop is attributed to Benjamin Hanby, a 19th century American composer.

Wassail Song is another ancient English carol. It is also known as *Here We Come A-Caroling*. *Wassail* means to wish good health.

We Three Kings was by J.H Hopkins in 1857, for a Christmas pageant at General Theological Seminary in New York City.

We Wish You a Merry Christmas is another English tune. It dates to the time in England when waits, or licensed municipal singers, sang for public service.

What Child is This? is based on the old English tune *Greensleeves*. The text is by William Dix.

Zapatos para el Nino Jesus, or Shoes for Baby Jesus, is a Christmas song from the Spanish speaking regions of the world.

All selections are in three types of files, Standard MIDI File formats Types 0 and

1, and WAV format. Below are explanations of each type of file format.

MIDI

MIDI is an abbreviation for Musical Instrument Digital Interface. MIDI was created in the early 1980's as a means for musical instruments to communicate with each other. During the early years, MIDI was used primarily by musicians for performances and data storage. As the usefulness of MIDI became apparent, it has been integrated into many more areas of the entertainment industry. MIDI is being used to control lighting and other stage equipment for theater and live performance. MIDI has also become part of the basic multimedia PC, which is now a mass market item.

Music stored in MIDI form is not a recording of actual sound, but a representation of the performance. Each MIDI event in a MIDI file will tell the MIDI hardware (usually a synthesizer of some sort) what to do. When a MIDI device plays music, it is being sent data which tells it what notes to play, how loud, how long, and with what sound to play them. There are also many other MIDI messages which set up aspects of the MIDI performance. These include settings for pan (placement of the sound in the stereo field), reverb and other effects, modulation (vibrato and tremolo), sustain (similar to holding a piano damper pedal down), as well as others which do not affect the sound in a direct way.

The Standard MIDI File format is a universal file format which can be used by almost any MIDI device. A Standard MIDI file can be used by most personal computer platforms which have MIDI capabilities. There are two major types of Standard MIDI files, Type 0 and Type 1 files. A Type 0 file has all the MIDI data stored on one track (please see glossary for a definition of track). A Type 1 file has data for each MIDI channel on separate tracks, and often multiple tracks can be assigned to the same MIDI channel. The advantage to a Type 0 file is that it loads into a MIDI device faster than a Type 1 file. This can be helpful when using slower computers or synthesizers with built-in disk drives and sequencers. The advantage to a Type 1 MIDI file is that it is much easier to edit than a Type 0 file. Since all the musical parts are separated, it is easier to cut and paste parts for arranging.

Recently, a new standard within MIDI has been adopted. This standard, called General MIDI (or GM), makes it possible to distribute music in MIDI form and have it sound similar on GM compliant devices. The original MIDI specification did not assign specific instrument sounds to the 128 possible patch (please see glossary) locations. General MIDI has specific instrument assignments, as well as designations for which MIDI channels can be used for pitched instrument sounds and which channel can use percussion sounds. Each percussion sound on the percussion channel is assigned a note. For instance, MIDI note 36 (C two octaves below Middle C) is assigned to the kick drum. A table of General MIDI instrument assignments is included in this document.

MIDI used in Windows often makes use of a MIDI Mapper, which is an

application which controls the flow of MIDI data from Windows' applications that use MIDI, to MIDI hardware devices installed on your system. Typical MIDI Mapper setups will include setups for Basic, Extended, and All MIDI uses. A Basic MIDI setup will only send MIDI data to MIDI channels 13-16. An Extended MIDI setup will only send MIDI data to MIDI channels 1-10. An All MIDI setup will allow MIDI data to be sent on all 16 MIDI channels. After opening the MID Mapper utility, press the down arrow button to the right of the Name: box.

Select a setup that refers to Extended or All MIDI channels. This will insure that the MIDI files on this CD will play properly.

MIDI Glossary

Bank- A group of patches.

Channel- A data path that is analogous to a television channel. MIDI data transmitted on one MIDI channel is ignored by devices not set to receive MIDI data on that channel.

Controller- This can refer to a hardware device, such as a keyboard, or a software message, which sets certain parameters of MIDI hardware to do certain things. In software, MIDI controllers affect volume, modulation, sustain (like a piano damper pedal), pan, and other aspects of MIDI performance.

Duration- The length a note is played. With MIDI, a note-on command will start the note and a note-off command will cause the note to end. If the MIDI data flow is interrupted after a note-on is sent, but before a note-off is sent, the note will continue until a note-off for that note is received, or until the MIDI device is reset or powered down.

Modulation- Vibrato or chorus are two examples of modulation. These are used to make music more expressive.

Note number- The MIDI specification has assigned each key on a musical keyboard to a MIDI note number. Middle C on a musical keyboard is MIDI note number 60. Add or subtract 1 for each note up or down from Middle C.

Pan- Short for panorama. This term indicates a location, from left to right, in the stereo field. Placing instruments in various places allows for more depth in the music.

Patch- Leftover from the old days of analog synthesizers, this refers to a specific instrument sound. In some old modular synths, patch cords were used to connect the various electronic components that comprised the instrument. These connections were required to get a sound from the synth.

Sequence- A MIDI file.

Sequencer- A software or hardware device used to play, edit and save MIDI files.

Track- This is a part of a MIDI file that contains data for one or more MIDI channels. In a broad sense, it could be compared to a line of music. The Type 1 MIDI files on this disc contain tracks for each instrument, and each is assigned to a particular MIDI channel.

Velocity- This refers to how hard (loud) a note is played. MIDI ranges for velocity information is from 1-128, with 128 being the hardest (loudest).

Please note that there are many more aspects to the various MIDI specifications than is presented here. This document is meant as an introduction to MIDI, not as a complete guide. There are many good books on the subject available at your local bookstore or library. Also included below are addresses for two industry groups which can provide complete specifications for MIDI standards. They provide these documents at a reasonable cost.

MIDI Manufacturers Association
P.O. Box 3173
LaHabra, CA 90632
(310) 947-4569

International MIDI Association
23634 Emelita St.
Woodland Hills, CA 91367
(818) 598-0088 voice
(818) 346-8578 fax

General MIDI Patch Assignments

001-Acoustic Grand Piano
002-Bright Acoustic Piano
003-Electric Grand Piano
004-Honky Tonk Piano
005-Rhodes Piano
006-Chorused Piano
007-Harpsichord
008-Clavinette
009-Celeste
010-Glockenspeil
011-Music Box
012-Vibraphone
013-Marimba
014-Xylophone
015-Tubular Bells
016-Dulcimer
017-Hammond Organ

018-Percussive Electronic Organ
019-Rock Organ
020-Church (pipe) Organ
021-Reed Organ
022-French Accordion
023-Harmonica
024-Tango Accordion
025-Nylon String Guitar
026-Steel String Acoustic Guitar
027-Jazz Guitar
028-Clean Electric Guitar
029-Muted Guitar
030-Overdrive Electric Guitar
031-Distortion Electric Guitar
032-Guitar Harmonics
033-Acoustic Bass
034-Fingered Bass
035-Picked Bass
036-Fretless Bass
037-Slap Bass 1
038-Slap Bass 2
039-Synth Bass 1
040-Synth Bass 2
041-Violin
042-Viola
043-Cello
044-Contrabass
045-Tremolo String Section
046-Pizzacato String Section
047-Orchestral Harp
048-Tympani
049-String Section
050-String Section with slow attack
051-Synthesized Strings 1
052-Synthesized Strings 2
053-Choir Aahs
054-Choir Oohs
055-Synthesized Voice
056-Orchestra Hit
057-Trumpet
058-Trombone
059-Tuba
060-Muted Trumpet
061-French Horn
062-Brass Section
063-Synthesized Brass 1

064-Synthesized Brass 2
065-Soprano Saxophone
066-Alto Saxophone
067-Tenor Saxophone
068-Baritone Saxophone
069-Oboe
070-English Horn
071-Bassoon
072-Clarinet
073-Piccolo
074-Flute
075-Recorder
076-Pan Flute
077-Bottle Blow
078-Shakuhachi
079-Whistle
080-Ocarina
081-Square Wave
082-Sawtooth Wave
083-Synthesized Calliope
084-Chiffer Lead
085-Charang
086-Solo Voice
087-Sawtooth Wave in Fifths
088-Bass and Lead
089-Fantasia
090-Warm Pad
091-Polysynth
092-Space Voice
093-Bowed Glass
094-Metal Pad
095-Halo Pad
096-Sweep Pad
097-Ice Rain
098-Soundtrack
099-Crystal
100-Atmosphere
101-Brightness
102-Goblin
103-Echo Drops
104-Star Theme
105-Sitar
106-Banjo
107-Shamisen
108-Koto
109-Kalimba

110-Bag Pipe
 111-Fiddle
 112-Shannai
 113-Tinkle Bell
 114-Agogo
 115-Steel Drums
 116-Woodblock
 117-Taiko
 118-Melodic Drum
 119-Synth Drum
 120-Reverse Cymbal
 121-Guitar Fret Noise
 122-Breath Noise
 123-Seashore
 124-Bird Chirps
 125-Telephone (warble)
 126-Helicopter
 127-Applause
 128-Gun Shot

Percussion Assignments

MIDI Note Number	Sound
35	Kick Drum 2
36 C2*	Kick Drum 1
37	Side Stick
38	Snare Drum 1
39	Hand Clap
40	Snare Drum 2
41	Low Tom 2
42	Closed High Hat
43	Low Tom 1
44	Pedal High Hat
45	Mid Tom 2
46	Open High Hat
47	Mid Tom 1
48 C3*	High Tom 2
49	Crash Cymbal 1
50	High Tom 1
51	Ride Cymbal 1
52	Chinese Cymbal
53	Ride Cymbal (bell strike)
54	Tambourine
55	Splash Cymbal
56	Cowbell
57	Crash Cymbal 2
58	Vibra-Slap

59	Ride Cymbal 2
60 (Middle C) C4*	High Bongo
61	Low Bongo
62	Mute High Conga
63	Open High Conga
64	Low Conga
65	High Timbale
66	Low Timbale
67	High Agogo
68	Low Agogo
69	Cabasa
70	Maracas
71	Short High Whistle
72 C5*	Long Low Whistle
73	Short Guiro
74	Long Guiro
75	Claves
76	High Wood Block
77	Low Wood Block
78	Mute Cuica
79	Open Cuica
80	Mute Triangle
81	Open Triangle
82	Shaker
83	Jingle Bell
84 C6*	(none)
85	Castanets
86	Mute Surdo
87	Open Surdo

* Indicates position on standard musical keyboard. Each change in MIDI note number is equivalent to one half step on the music keyboard.

WAV Files

The files in the WAV directory are digital recordings of the MIDI files. They are 16-bit stereo files, with a sampling rate of 22.05 kHz. If you have an 8-bit sound card, such as the Sound Blaster Pro*, you will need to convert these files to 8-bit format to use them. This will require that you copy the digital files onto your hard drive. Please note the size of these files. Digital audio requires a huge amount of storage space for high quality resolution.

There are many utilities that will convert and edit digital files, from inexpensive shareware titles available on commercial online services and BBSs, to commercial software titles ranging from \$80 to \$500. Please see TECHNOTE.WRI for information about tools used for this production.

Audio CDs use a 16-bit format with a sampling rate of 44.1 kHz, and require about 10.5

megs per minute of playback time for storage. Thus, a 60 minute audio CD will hold over 600 megs of data. Each time you lower the resolution of digital audio by one half, you lower the amount of storage space required by one half. For instance, if you were to take one minute of CD audio (10.5 megs) and make it mono rather than stereo, you would need 5.25 megs to store the data. Take that reduced file and make it 8-bit and it would then require 2.625 megs to store. Again, reduce the sampling rate to 22.05 kHz and the same file would then be 1.3125 megabytes in size.

*Although a Sound Blaster Pro requires a 16-bit ISA slot, it will record and play only 8-bit audio.

Troubleshooting

This section will answer several common problems that occur with MIDI and its use in the Windows environment. Driver and other software, and hardware installation problems should be referred to the specific company who markets the software in question. This section assumes that your computer has a working sound card installed.

Problem: There is no sound when I try to play the MIDI files.

Solutions:

1. Turn up the volume on your speakers or amplifier.
2. Open mixer application for your sound card and make sure all volume controls are at full volume.
3. Open your MIDI Mapper applet, found in the Control Panel application. Make sure you have a setup that refers to Extended or All MIDI channels.

Problem: Notes "drop out" or sound chopped off while playing.

Solution:

You are probably using the files authored for wavetable sound cards on your FM card. Please use the MIDI files from the FM directories. FM cards will typically not play as many notes at once as wave table cards will.

Problem: The music sounds like the wrong instruments are playing. The track is labeled as a recorder but doesn't sound like one.

Solution:

These MIDI files are authored for use with General MIDI compliant devices. Your installed driver is probably not GM compliant, which means it will not play the instruments called for in these files. Please install a GM driver for your sound card. The manufacturer of your card should have one available.

Problem: There is a delay from the time I start MIDI playback until the music starts.

Solution:

This is not really a defect, but the way the files were processed. These files were processed using Roland software which inserts MIDI messages at the beginning of each file to initialize the MIDI hardware. Since this data must be sent before the music begins, there will be a slight delay.

Problem: The MIDI files take too long to load on a slower computer or hardware sequencer.

Solution:

Use the MIDI files from the Type0 directories. Although these files are slightly larger than Type 1 files, they will usually load faster than Type 1 files.

WAV troubleshooting

Problem: There is no sound.

Solution:

As with the solution for this problem in the MIDI section, make sure all volume controls are turned up, including the software mixer for your sound card.

Problem: On my slower 386, parts of the music drop out, making the music sound choppy.

Solution:

The data flow is too much for the machine to handle. You will need to convert the files to 8-bit to use.

Problem: I have converted the file to 8-bit and there is hiss.

Solution:

This is an inherent problem with 8-bit audio. The best you can do is to reduce the amount of treble in playback using your software mixer controls and/or the treble controls on your speakers or amplifier. Another solution is to upgrade your card to a 16-bit model.

Sound Blaster is a trademark of Creative Labs.