Essential Dictionary of Music Notation

A Practical and Concise Source for Students to Professionals

Take the mystery out of music notation. Whether you're using a pencil to sketch a melody or a computer to score a symphony, this multi-purpose quick reference is for you.

Every aspect of notation is covered in a versatile, easy-to-use format. From beginning music students to seasoned engraving professionals, everyone notating music will love this dictionary!

- Easy-to-use dictionary format
- Concise text is clearly illustrated
- Key words and concepts are highlighted
- Over 75 topics spanning 158 pages

The most practical and concise source for music notation available for students to professionals.

TOM GEROU • LINDA LUSK
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- Easy-to-use format, including cross-referencing
- For any musician, whether using pencil or computer
- Emphasis on correct and current notation practices
- Numerous examples, kept simple and to-the-point

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APPROACHING MUSIC NOTATION

Music notation is a language and, as such, it must be communicable. The closer the notation adheres to common rules and guidelines, the more successfully the music will be performed. The rules and guidelines presented here will make the notation easier to read and will help to make the musical intent clear. Although these rules are not inflexible, they should not be ignored.

For music notation, the first priority is always clarity. Choices need to be made that are solely dependent on the situation; a rule may not provide the most desirable answer to a problem. (It would be an endless task to list every musical exception to a rule.) Problems are usually solved by deciding which rule is more flexible (least important to clarity).

Although meticulous adjustment can only clarify and beautify the notation, sometimes such attention to detail is not practical. All decisions must depend on a wide variety of situations. An understanding of the rules allows these choices to be made wisely—the notation can only be as good as the knowledge at hand.

ABOUT THIS BOOK

The Essential Dictionary of Music Notation is in an easy-to-use format, which includes cross referencing. At the top of each page, running heads show exactly which topic is being treated on that page. Bold treatments of text highlight important points for clarity and quick reference.

Text is accompanied by numerous examples directly related to the topic being discussed. These examples are kept as simple and complete as possible, with an emphasis on presenting correct and current notation practices. Obsolete rules are mentioned only when necessary.

The focus of this book has been narrowed, avoiding the discussion of orchestration or music theory, in order to present as much information as possible that is directly related to the actual notation of music. The serious musician is encouraged to seek out other sources that more thoroughly address the subjects of orchestration and music theory.

Whether you are using a pencil or a computer, all principles within this book are applicable. No computer software or specific tool is referenced, in order to make this a useful guide for any musician.

An Index of Topics is provided on the last page.

ACCIDENTALS

A cappella

Vocal music that is to be sung without accompaniment (a cappella) often has a piano part for rehearsal only.

The piano part may be full size or cue size (see Cue notes). If cue size, the staff should be cue size also. (Cue-size notes on a full-size staff are not as easy to read.) The indication for rehearsal only should be clearly placed above the piano part.

A due (a2) See Sharing a staff

A tempo

Place above the staff (sometimes within the grand staff) to indicate a return to the normal tempo. Used after tempo alterations such as ritardando, accelerando, più lento or ad libitum. (See Tempo marks)

Accents See Articulations

Accidentals

Temporary alterations to the pitch of a note.

THE 5 SYMBOLS

If appearing in the music, apart from use in the key signature, these symbols are called accidentals.

# Sharp
 Raises a note one half step.

x Double-sharp
 Raises a note two half steps.

♭ Flat
 Lowers a note one half step.

∥ Double-flat
 Lowers a note two half steps. Notice that the flats touch, forming one symbol.

♮ Natural
 Cancels any of the above, whether indicated in the key signature or as an accidental.
ONE ACCIDENTAL PER NOTE

Do not use multiple accidentals on one note. (A double-flat is a single accidental.)

Accidentals shown altering one note from lowest to highest.

The lowest a note can be lowered is a ♭.

The highest a note can be raised is a ♫.

WITHIN A MEASURE

Any accidental is cancelled when a new accidental appears on the like pitch.

Notice that only the flat (not ♬) is needed to change from a double-flat to a flat.

An accidental affects all subsequent notes of the same pitch within the measure.

An accidental must be added again in the following measure.

An accidental carries over to a tied note extending from one measure to the next.

The accidental will reappear only when the note is re-struck.

OCTAVE ALTERATIONS

Accidentals do not apply if an 8va sign is added; repeat the accidentals.

COURTESY ACCIDENTALS

Used as reminders of the key signature when an accidental has been used in the previous measure, or to avoid ambiguity in certain situations.

Use a courtesy accidental as a reminder to return to the original pitch.

Courtesy accidentals may or may not be enclosed in parentheses. The parentheses show that it is a courtesy accidental, and help avoid confusion about the key signature. However, if many courtesy accidentals are used, and the piece is also crowded, the parentheses could make it look cluttered and more complicated. For this reason some editors choose not to use parentheses at all.

If a chord has more than one courtesy accidental, each accidental gets its own pair of parentheses.
It is best to add a courtesy accidental for octave shifts although the notes of the same pitch in different octaves are considered separately.

**GRACE NOTES WITH ACCIDENTALS**

The accidental placed on a grace note will be smaller (cue size), like the grace note.

The accidental **affects all subsequent notes of the same pitch** within the measure.

Depending on the clarity of the situation, **courtesy accidentals are often needed** to avoid confusion.

**ALIGNMENT FOR INTERVALS (2 Notes)**

For intervals of a 2nd through a 6th, place the upper accidental closest to the note, the lower accidental to the left.

When intervals are **greater than a 6th**, accidentals align vertically.

For the interval of a 6th, if the two accidentals don't collide they may be aligned vertically.

**ALIGNMENT FOR CHORDS (3 Notes)**

When outer notes are a **6th or less**, the upper accidental is closest to the note, the lower accidental is placed left, and the middle accidental is placed farthest left.

When outer notes are **greater than a 6th**, upper and lower accidentals are aligned closest to the notes—the middle accidental is placed to the left.
ALIGNMENT FOR CHORDS
(More than 3 Notes)

When dealing with accidentals for complex chords, rules are treated more as guidelines or suggestions. Keep the arrangement of the accidentals as compact as possible.

Make the arrangement of accidentals as easy to read as possible for the situation.

Align the highest and lowest accidentals whenever possible.

The center accidentals are usually arranged diagonally from highest to lowest.

Align accidentals for octaves whenever possible.

Accidentals for the 2nd should usually be shaped like the 2nd (if the outer notes are greater than a 6th).

The upper accidental is placed closest to the note, the lower accidental to the left.

Accidentals are always placed before the entire note structure. (Do not place an accidental between notes that are played together, even if they are stemmed in opposite direction.)

TWO PARTS ON A STAFF

For multiple notes played by one instrument, an accidental carries through the measure. Cancellations must be applied.

CHROMATIC PASSAGES

In general, use sharps when ascending, flats when descending.

When choosing accidentals, consider the context of the music, such as key signature, harmony and voice leading.

In the chord below, both a sharp and a flat are required (C#, not D♭; Eb not D♭).

ACCIDENTALS WITH TRILLS (See Trill)

ACCIDENTALS IN HARP MUSIC
(See Pedal marks)
Alternating instruments

CONCERT ORCHESTRA / BAND

1. To alternate instruments, enough time must be given to allow the change.

2. During the measures of rest the indication "Muta in [second instrument]" is indicated below the staff as soon as the first instrument stops.

3. Any change to the key signature occurs after the barline following the rest, before the new instrument begins.

4. The new instrument is indicated above the entrance of the instrument.

INCORPORATING CUES

1. Cue notes should be added after many measures of rest, to help the performer make a correct entrance.

2. The cued instrument is indicated above the passage in a smaller type size.

3. The key signature changes at the beginning of the cue.

4. Full-size rests are indicated below (or above, depending on stem direction).

JAZZ ENSEMBLE

All rules above apply except that “muta in [...]” is written “Change to [new instrument]” and is placed above the staff.

COMMONLY ALTERNATING INSTRUMENTS

The following is a listing of commonly alternating instruments in a standard orchestra:

- Flute III
- Oboe III
- Clarinet III
- Bassoon III
- Alternate Piccolo
- English horn
- Bass clarinet
- Contrabassoon

In smaller orchestras, the second player alternates in all cases above.

Arpeggio signs

A vertical wavy line before a chord or interval indicates an arpeggio (rolled chord).

ARPEGGIO DIRECTION

The chord is to be played quickly from bottom to top (no direction arrow).

played upward
(no direction arrow)

If the arpeggio is to be played from top to bottom, an arrowhead is added to the bottom of the wavy line.

played downward
(See Cue notes)
When the arpeggio returns to normal (bottom to top) or alternates with an arpeggio played downward, an arrowhead is added to the top of the wavy line.

played upward

The arpeggio sign should not extend much past the chord affected.

PLACEMENT WITH ACCIDENTALS

Arpeggio signs are always placed before accidentals.

allow space for accidentals

FOR KEYBOARD INSTRUMENTS

The arpeggio sign can extend across both staves. The right hand begins after the left hand has completed the chord.

played upward, from bottom to top

If the wavy line is broken between staves, both hands begin the arpeggio simultaneously.

hands start simultaneously

Articulations

Articulations are symbols used to indicate how a note or chord is played, alone or in relation to other notes and chords.

There are five main articulations: staccatissimo, staccato, tenuto, accent, marcato.

An articulation's influence on a note or chord varies depending on its context. A staccato note in a slower tempo is not played as short as it would be played in a faster tempo. An accent is softer in the dynamic \( p \) than in the dynamic \( f \).

One articulation applies to all notes of an interval or chord (on one stem).

DURATIONAL ARTICULATIONS

There are three articulations that affect the duration of a note or chord: staccatissimo (•), staccato (○) and tenuto (−).

The following illustrates durational articulations compared to an unmarked note, from shortest to longest.

SHORTER \( \rightarrow \) LONGER

(staccatissimo staccato tenuto)

can be same duration
**Staccatissimo**

The shape varies slightly among engravers, but is always wedge-shaped. It indicates that a note or chord is to be played as short as possible.

![Staccatissimo](image)

Used only with note values of a quarter note or less.

The *staccatissimo* is centered on the **notehead**. Placement is in the next space from the notehead, whether the note is on a line or space.

![Placement](image)

**Tenuto**

A short, heavy line above or below a note or chord, **thicker than the staff lines**.

A tenuto indicates that a note or chord is to be held for its full value (durational articulation), or the intent may be to apply a slight stress (articulation of force).

![Tenuto](image)

However it is interpreted, the tenuto is meant to ensure that a note or chord will be given a certain amount of attention.

This emphasis allows the tenuto to be flexible in its application, especially when combined with other articulations.

The tenuto is sometimes referred to as a *sostenuto* or stress.

Used with notes of any rhythmic value.

The **tenuto** is centered on the **notehead**. Placement is in the next space from the notehead, whether the note is on a line or space.

![Placement](image)

Also center to the **notehead**, not the stem, for opposite stem direction.

**Staccato**

A dot above or below a note or chord indicates that the note or chord is to be played short.

![Staccato](image)

Used with note values of a quarter note or less.

The *staccato* is centered on the **notehead**. Placement is in the next space from the notehead, whether the note is on a line or space.

![Placement](image)
ARTICULATIONS OF FORCE

There are three articulations that affect the force of attack of a note or chord: the tenuto [-] discussed earlier, accent [>] and marcato [A].*

The following illustrates articulations of force compared to an unmarked note, from lesser to greater force of attack.

**Dynamic Level**

| (unmarked) | MOST STRESS | ADDED |

- tenuto - accent - marcato
  (when used as stress)

*Terminology varies for the symbols [%] and [A]. For the sake of this discussion, the words accent and marcato have been attached to the symbols.

**Accent**

When an accent is placed over or under a note or chord, the note or chord is to be played with more attack, more marked.

accent  ➔  >

Used with notes of any rhythmic value.

The accent is centered on the notehead. Preferred placement is outside the staff. Also center to the notehead (not the stem) for opposite stem direction.

Although it is to be avoided, sometimes placing an accent within the staff is acceptable. A decision needs to be made whether it is preferred to have the accent closer to the notehead, or outside the staff.

**Marcato**

When the marcato is placed over or under a note or chord, the note or chord is to be played with even more attack, and more marked, than an accent.

marcato  ➔  A

Used with notes of any rhythmic value.

The marcato is centered on the notehead. Preferred placement is outside the staff and above the staff.

preferred placement— above the staff

acceptable below

Also center to the notehead (not the stem) for opposite stem direction.
OTHER ARTICULATIONS OF FORCE

Sforzando (sf), forzando/forzato (fz), and sforzato (sfz) are also included in this articulation group and are interchangeable with accents and marcato accents, depending on the dynamic range.

These three articulations have the benefit of a built-in indicator of dynamics.

For instance, a sf should be indicated only in the dynamic ranges from ppp to f. With each increase of dynamic level, the sforzando reflects the higher dynamic level: sf in f, sff in fff.

The following chart illustrates the relationships between accent [>] and marcato [Å] to sforzando [sf], forzando [fz], and sforzato [sfz] within various dynamic levels.

<table>
<thead>
<tr>
<th>Dynamic Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
</tr>
<tr>
<td>&gt;</td>
</tr>
<tr>
<td>∧</td>
</tr>
<tr>
<td>∨</td>
</tr>
</tbody>
</table>

A [>] in f is comparable to a [sf].
A [Å] in fff is comparable to a [sfz].

COMBINED ARTICULATIONS

Durational articulations can be combined with articulations of force to create variations of the basic articulations.

The following examples are the most used combinations.

Combining articulations with tenuto

The dual function of the tenuto—the idea of more importance, more attention, whether of duration or force (or both)—allows the tenuto to be combined with either articulation group.

When a tenuto is combined with an articulation of force, the tenuto has more of a durational function, but may also retain its idea of force.

When combined with an articulation of force...

When a tenuto is combined with a durational articulation, the tenuto has the function of an articulation of force, while retaining its durational function.

When combined with a durational articulation, and may also add extra force.

Tenuto is an articulation of force and of duration...

Usual interpretation: play detached and with a slight stress.
PLACEMENT WHEN COMBINED

The following can be used as guides for the placement of combined articulations:

- tenuto & staccato

- accent & staccato

- marcato & staccato

Notice that the simile was not used at the beginning of the line, even though the pattern had already been established.

The simile is ended when the pattern ends or when different articulations are added.

SLURS WITH ARTICULATIONS  (See Slurs)

Augmentation dot

PLACEMENT

Always place one dot per space and only in a space—never on a staff line or on the same level as a leger line.

For a line note—place to the right of the notehead, in the space above.

For a space note—place to the right of the notehead in the same space as the note.

Keep the two combined articulations together (on the same side of the note) whenever possible.

Notice that when a staccato is combined with another articulation (and is on the same side of the note), it is centered on the notehead, even when it is on the stem side.

SIMILE

When an articulation (or pattern of articulations) is applied in a repetitious and predictable manner, the word simile may be used.

Simile is indicated after the pattern has been clearly established (usually two or three measures).
For notes with a flag—the dot is placed further right, altogether avoiding the flag. Never place a dot between the notehead and its flag.

Double and triple dots are placed directly to the right of the first dot. Horizontal spacing is equal to that of the first dot. *Multiple dots should be used only in situations where they will be easily understood.*

Never separate a dot from its notehead. Stem direction and creative positioning of a dotted note must be considered.

Ties always avoid the dot—place the tie clearly to the right of the dot.

For two or more notes in a chord with the same stem direction, **always align the dots vertically.**

Two dots never share the same space.

**FOR INTERVALS OF A SECOND**

The dot for the space note is always placed in the space to the right of the notehead.

If the *line note is above,* place the dot in the space above. If the *line note is below,* place the dot in the space below.

**FOR TWO OR MORE PARTS**

For stems up, place dots for line notes in the space above. For stems down, place in the space below.

**DOTTED RESTS**

Rests are dotted in the same way notes are dotted, but with some restrictions on their use.

Place the dots as follows:

Dotted rests are used mainly to **clarify the subdivision of a measure.** (See Meter)

Dotted whole rests are the least used of all the dotted rests. They are never used in simple meter.

Possible use of dotted whole rest:
Likewise, a **dotted half rest** should not be used in simple meter.

**Possible uses of dotted half rest:**

- \( \frac{\text{3}}{\text{4}} \)
- \( \frac{\text{3}}{\text{8}} \)

**Dotted quarter rests** are used in compound meters. Avoid using them in simple meters.

In \( \frac{\text{3}}{\text{8}} \) time, dotted quarter rests can be used on beats 1 and 4 only.

- \( \frac{\text{3}}{\text{8}} \)

In \( \frac{\text{5}}{\text{8}} \) time, dotted quarter rests can be used on beats 1, 4 and 7 only (the pulses).

- \( \frac{\text{5}}{\text{8}} \)

In \( \frac{\text{7}}{\text{8}} \) time, do **NOT** use a dotted half rest across the middle of the measure. Use dotted quarter rests.

- \( \frac{\text{7}}{\text{8}} \)

It is acceptable to use the **dotted eighth rest, dotted sixteenth rest, etc.,** for a cleaner look.

- \( \frac{\text{7}}{\text{16}} \) vs. \( \frac{\text{7}}{\text{4}} \)

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**Barlines**

Barlines are vertical lines that divide a staff into measures.

**SINGLE BARLINE**

The thickness of a barline is equal to, or greater than, the staff line thickness (staff lines being thicker than stems).

To help the performer follow the music from staff to staff, **avoid the alignment of barlines from staff to staff** (or from system to system).

- \[ \text{normal space after barline} \]

**Allow a small amount of space after a barline—depending upon the density of notes within the measure.**

- \[ \text{less space may be allowed after the barline if the density of notes is high.} \]

- \[ \text{more space may be allowed after the barline if the density of notes is low.} \]

**Less space may be allowed before the barline if density is high. Avoid adding space before the barline.**

- \[ \text{less space} \]
DOUBLE BARLINE
(Thin/thin)

Used to clarify the end of a section of music, such as in a Da Capo layout.

FINAL DOUBLE BARLINE
(Thin/thick)

Marks the end of a composition, or the end of a movement within a larger work.
Consists of a thin barline followed by a thick barline.

BROKEN BARLINES

Broken (dashed) barlines are sometimes used when a situation calls for the completion of a section mid-measure, although the final double barline is preferred.

For composite meters, a broken barline is sometimes used to clarify the meter division within a measure.

THE LEFT BARLINE

A single staff should never begin with a barline.

SYSTEMIC BARLINE

A systemic barline connects two or more staves together, as in the grand staff.

Barlines are used to group staves of like instruments in a score layout.

WITH CHANGING CLEFS

The new clef (cue size) is placed before the barline if the clef changes mid-staff.
A courtesy clef is placed before the last barline of the staff if the new clef begins immediately on the next staff.

A courtesy time signature is placed after the last barline if the new time signature begins on the following staff.

WITH MULTIPLE COURTESY SIGNS

If a courtesy clef, key signature and time signature all appear together, they follow the rules for each individual courtesy change.

The order is the same as the order presented at the beginning of the piece (clef, key signature, time signature).

INCOMPLETE MEASURES

If a piece begins with a pick-up, the barline is positioned according to the time value of the beat(s).

Beams

Although sometimes referred to as "balkans" or "ligatures," "beam" is the preferred term for the connection between two or more consecutive notes, replacing the flag.

Beams greatly simplify the reading of music, substituting for individual flags in groupings of notes smaller than a quarter note.

Because of the ease in reading of beams, the use of flags in vocal music—in relation to the lyric—has become obsolete.
**CONNECTION TO THE STEM**
Beams are connected to the side of the stem. They must be **flush to the stem**, both vertically and horizontally.

**PRIMARY AND SECONDARY BEAMS**
The beam that is furthest from the noteheads and connects a group of notes is called a primary beam. This beam **remains unbroken** throughout the grouping.
Any beam other than the primary beam is a secondary beam. The secondary beam **may be broken**, to divide the grouping into smaller units for easier reading.

![Diagram showing primary and secondary beams]

**FRACTIONAL BEAMS**
A fractional beam is also a secondary beam. Fractional beams are **associated with only one note**.
The **length** of a fractional beam is the same as the width of a notehead.

![Diagram showing fractional beam]

**DOUBLE BEAMS**
Normal **stem length** will accommodate a double beam—the stem need not be adjusted.

**TRIPLE AND QUADRUPLE BEAMS**
When a third or fourth beam is added below the secondary beam, the stems **must be extended** by approximately one staff space per beam.
The extension of the stems allows the space between the noteheads and the lowest beam to remain normal.

**BEAMING AND METER**
The basic purpose of beaming is to **connect two or more notes within the same beat (or pulse)**. Meter must be considered when grouping notes with a beam.

**If 32nd- and 64th-note values occupy the majority of the rhythmic values, it may be better to double the rhythmic values of the entire piece and alter the tempo.**

**Place** exactly the same as a full-length secondary beam would be placed. The beam is always **inside** the grouping, and it usually follows or precedes a beamed dotted note.

**In any simple meter**, each beat is divisible by two; a beam may connect the two notes. Simple duple, simple triple and simple quadruple meters each have slightly different considerations.
Simple duple meter ($\frac{2}{2}$)

In some cases, the entire measure may be beamed.

The combined use of flags and beams clarify the meter.

Avoid beaming in a manner that would suggest $\frac{3}{2}$ time. Use flagged notes to differentiate $\frac{2}{2}$ meter from $\frac{3}{2}$ meter.

Some combinations of beams, flags and rests in simple duple meter:

Beaming to include rests inside the grouping is acceptable.

Simple quadruple meter ($\frac{4}{2}$)

In $\frac{4}{2}$ time, beats 1 & 2 and beats 3 & 4 may be beamed together to form a unit.

Never connect the notes of beat 2 with beat 3.

The basic rule in $\frac{4}{2}$ time is that the two halves of the measure (beats 1 & 3) must be immediately recognizable. The only exception to this would be a very simple syncopation (such as $\frac{3}{2}$).

Because of this rule, all the notes in the measure would not be beamed together, as is possible in the other simple meters.

Simple triple meter ($\frac{3}{2}$)

Consideration is given to visually maintain the three beats within the measure. In some cases the entire measure may be beamed.

Although some contemporary engravers beam over a rest at the beginning or ending of a beamed grouping $\frac{3}{2}$, it is not the preferred notation.

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THE SAME RHYTHM THREE WAYS
Each could be the best for a particular situation.
Notice that each beat is recognizable in the following example.

Notated with beams only, the two halves of the measure are easily recognizable:

If the above example were in a piece that contained triplets, it could at first glance be mistaken for triplets. In that case, a better notation would be:

For any simple meter, when a beat is uneven or contains more than two notes, the two adjacent beats should not be beamed together as a unit.

Compound meter
When each pulse of the measure is divided into three beats, the meter is called “compound.” A beam may connect the three beats.

The units of three beats for each pulse in compound meter must always be maintained. Even when rests are included in the measure, as in the example below, beats 1, 4 & 7 must be clearly visible.

The three units in the above example could be made even more obvious by including the rest on beat 5 in a beamed unit.

It is possible to group all notes within a pulse. All the notes in the measure, however, cannot be beamed together—this could cause the measure to appear to be in some other meter.

Although different groupings are sometimes used for phrasing or interpretation, the above should be generally adhered to.
TIES AND BEAMS

Avoid using tied notes within a beamed grouping. The unit should be broken where the tie is placed.

Preferred in some situations

If all other stems in the surrounding measures are up-stem, that direction is sometimes continued if the two notes are the same distance from the middle line. (This is a very subtle point, and somewhat obsolete.)

For three or more beamed notes

If the majority of the notes are on or above the middle line, the stems go down.

If the majority of the notes are below the middle line, the stems are up.

If the number of notes above and below the middle line are equal, the note farthest from the middle line dictates the stem direction. (If all notes are the same distance, the preference is down.)

STEM DIRECTION OF BEAMED GROUPS

Simple rules for stemming of single notes apply to beamed groups when possible (for example, if all notes in a beamed grouping are on or above the middle line of the staff, stems are down), but some additional guidelines are needed.

(See Stems)

For two beamed notes

Stem direction is determined by the note farther from the middle staff line.

If both notes are the same distance from the middle line, the preference is for stems down.
BEAM SLANT & PLACEMENT

Concerning the computer

With most computer engraving today, the direction, slant and placement of the beam are automatic.

However, the defaults—or even the settings allowable—may not conform to traditional practices. Even though some of these practices are in the process of change, there are some guidelines to keep in mind for a more professional look.

Beginning placement of the beam

When stems are up, the stem length of the highest note determines the beam placement.

When stems are down, the stem length of the lowest note determines the beam placement.

Direction of slant

Beams usually follow the contour of the notes, ascending or descending.

For mixed direction of notes, the beam usually follows the direction between the first and last note of a grouping.

When two or more notes share a stem, the note closest to the beam dictates the beam direction.

Horizontal beaming

A beam should be horizontal if the first and last note of the beamed group is on the same pitch level.

If the grouping consists of repeated intervals, the beam should be horizontal.

Horizontal beams may be used if inner notes do not follow the interval direction of the outer notes.

Some other examples of horizontal beaming:

Interval-specific beam slant

Determining the placement and slant of beams in traditional plate engraving was complicated and detailed.

The following are approximate guidelines, modified from the strict traditional rules for beaming of intervals. There are two main reasons for this modification:

1. The consistency of the computer and the quality of modern printing make it no longer necessary to avoid the small “wedges” of white space that in the past often filled in with ink.

2. Adjusting many beams individually on the computer is very time-consuming.
A pair of notes of different pitch should not have a horizontal beam. (Exception: two notes on the same line or space, one or both altered with an accidental)

If a beam slants, it is usually from 1/2 to 2 staff spaces—very seldom more.

Intervals of a 2nd slant 1/2 space.

Intervals of a 3rd slant 1 staff space.

Intervals of a 4th slant from 1 to 1-1/2 staff spaces.

Intervals of a 5th, 6th & 7th each slant approximately 1 to 1-1/2 staff spaces.

Intervals of an octave and greater slant 1-1/2 to 2 staff spaces.

Beamed notes with leger lines slant 1/2 staff space. (Remember that stems must extend to the middle line.)
**Bowing**

Down-bow and up-bow markings are centered to the notehead and are placed above the staff, except when two parts share a staff.

String techniques such as spiccato, legato, portato and jeté are notated conventionally, with slurs and/or articulations.

The study of orchestration is necessary to properly specify string indications.

Slurs can indicate either phrasing or bowing, or both.

Brackets to the left of the chord may be used for multiple stops if the chord is to be divided a particular way. Usually no bracket is used.

Multiple stops may be double, triple or quadruple stops.

**Bracket**

The bracket is used to connect two or more staves to form a system or to group certain instruments within a system.

The bracket is different from the brace in that it connects the staves for two or more separate instruments, while the brace connects staves for one instrument (such as keyboard).

The grouping may be two or more unlike instruments, identical instruments, or a family of instruments, such as strings.

**Brace**

The brace is used to connect the two staves in scores for instruments such as piano, organ, harp and marimba.

The brace connects two staves to form a grand staff.
Breath mark

The breath mark (•) has two similar uses:

- **an actual breath indication** for instruments (including voice) requiring the breath to sound.

- **a small pause or break** (as if taking a breath) for instruments not requiring breath to sound.

A breath mark may or may not interrupt the tempo. If it does interrupt the tempo, the break or pause is shorter than that of a caesura or fermata.

**PLACEMENT**

The breath mark is indicated just above the staff, at the point where a breath or break is desired.

---

If the breath mark occurs between two notes, the placement is toward the **end of the space for the full value** of the note.

If the breath mark occurs at the end of a measure, the placement is just before the barline.

---

Caesura

The caesura (//) is a small pause or break in the tempo (implying a break in sound).

The pause of the caesura is **slightly longer than a breath mark**, but shorter than a fermata.

**PLACEMENT**

The caesura is placed on the **fourth line from the bottom** of the staff (extending to the first leger line), at the point where a break is desired.

The caesura is placed toward the **end of the full value** of the note.

If space is tight, the caesura can be centered between two notes.
If the caesura occurs at the end of a measure, the placement is just **before the barline**.

If a longer pause is desired, a *fermata may be placed above the caesura.*

---

**Chord frames & symbols**

Chord frames are diagrams that contain all the information necessary to play a particular chord on a fretted instrument.

*The photograph below shows the finger numbers corresponding to the fingerings used for guitar.*

The number of strings and tunings vary between string instruments. The *chord frame is modified* (number of strings, tunings) according to the differences between each instrument.

The following examples explain the various *chord frame elements* for guitar.

---

*An X indicates that the string is unplayed or muted.***

Open (unfingered) strings

*Circles indicate the fret and string on which the finger is placed—the number indicates which finger is used.*
Circle of fifths  
See Key signatures

Clef signs

The following are commonly used clefs.

Middle C is shown for comparison in all examples except neutral clefs.

TREBLE AND BASS CLEFS

Treble and bass clefs are most frequently used. Keyboard, harp and organ music is written using only these clefs.

The octave treble clef is sometimes used for tenor vocal parts, to indicate that the part is one octave lower than written. The double treble clef serves the same function as the octave treble clef but is much less frequently seen.

The regular treble clef is also commonly used for tenor vocal parts; the octave is assumed.

CHORD SYMBOLS

The chord symbol is always placed above the frame to identify the chord.

Careful attention must be given to the consistent identification of chords, in the least ambiguous way possible.

Chord symbols often appear without a frame. Whether or not there is a frame, space must be allowed so that the symbol is aligned with the proper beat.

A complete listing of guitar chords, along with chord theory, is provided in Alfred's Guitar Chord Encyclopedia (Item #4432). It also includes a listing of chord symbols and a listing of ambiguously named symbols.
C CLEFS

**Alto clef** is commonly used for viola, to avoid excessive leger lines. (Viola also uses treble clef.)

```
\begin{center}
\textit{alto clef}
\end{center}
```

![Alto clef](image)

**Tenor clef** is primarily used for bassoon, cello and trombone when playing in higher registers.

```
\begin{center}
\textit{tenor clef}
\end{center}
```

![Tenor clef](image)

The following C clefs are **obsolete**:

```
\begin{center}
\textit{soprano clef} \hspace{1em} \textit{mezzo-soprano clef}
\end{center}
```

![Soprano clef](image)

![Mezzo-soprano clef](image)

```
\begin{center}
\textit{baritone clef}
\end{center}
```

![Baritone clef](image)

**NEUTRAL CLEFS**

Neutral clefs are used by percussion instruments of indefinite pitch. The following is most commonly used.

```
\begin{center}
\text{\textit{neutral clef}}
\end{center}
```

Neutral clef for single-line percussion:

```
\begin{center}
\text{\textit{neutral clef for single-line percussion}}
\end{center}
```

**POSITIONING**

Clefs are **slightly indented on the staff**, to the right of a systemic barline or the open single staff. Be sure to leave the **single staff open—do not put a barline before the clef**.

```
\begin{center}
\text{\textit{indent on single staff—no left barline}}
\end{center}
```

![Indent on single staff](image)

```
\begin{center}
\text{\textit{indent on staff with systemic barline}}
\end{center}
```

![Indent on staff with systemic barline](image)

```
\begin{center}
\text{\textit{The clef is always placed before the key signature and time signature.}}
\end{center}
```

Notice the distance from the end of the staff to the clef, from the clef to the key signature, and from the key signature to the time signature.

![Distance from clef to signature](image)

**CLEF CHANGES**

When the clef changes **within a staff**, a cue-size clef is used (usually 75% of the original clef size). Courtesy clefs are also cue size.

If a clef change affects a **complete measure**, it is always placed before the barline.

```
\begin{center}
\text{\textit{Only a systemic barline can precede a clef sign.}}
\end{center}
```

(See Systems)

If a clef change is **within a measure**, the clef is placed directly before the first note involved.
If a clef change **begins after a rest and is on a beat**, the clef is placed directly before the first note affected.

If a clef change **begins after a rest but is not on a beat**, the clef precedes the rest.

If a clef change **occurs at the beginning of a staff**, a courtesy clef is placed before the barline at the end of the previous staff, followed by the new clef at full size in the new staff.

The rules for clef changes are not affected by the **addition of a key change and/or time signature change**. The clef sign precedes the barline; the key signature and time signature follow the barline.

Notice that the **order** of courtesy clef, key signature and time signature is the same as the order at the beginning of a piece. The **courtesy clef** is cue size; the key signature and time signature are normal size.

Also notice the **open staff** after the courtesy key signature and time signature.

---

**Coda sign**  See D.C. al Coda, D.S. al Coda

**Courtesy accidentals**  See Accidentals

**Credits**

Credits may consist of the **composer**, **lyricist** and **arranger**, or a word such as **traditional**, **anonymous**, **folk song**, etc.

1. The **composer** credit is placed flush right with the page margin. It is not horizontally aligned with the tempo marking.
2. The **arranger** credit is placed below the composer credit (also not horizontally aligned with the tempo marking).
3. The **lyric** credit is placed flush left with the page margin, horizontally aligned with the composer credit.

The **typeface for all three credits is usually Roman**.

For a **less formal style**, such as pop piano/vocal music, the lyric credit would go under the composer credit, with the arranger under that. **All credits would be flush right** with the page margin.

Some examples:

Words and Music by..................

Words and Music by

Music by..................

Words by..................

Arranged by..................

The word “arranged” may be abbreviated (Arr.).
Cue notes

Cue notes may be given as guidance only, to assist a performer's entrance after numerous measures of rest.

Cue notes may also be given for possible performance if the cue instrument is weak or missing. (See Alternating instruments)

The size of cue notes is somewhat smaller than normal note size, but still large enough to be legible (65–75% of normal note size).

<table>
<thead>
<tr>
<th>65%</th>
<th>75%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>🎼</td>
<td>🎼</td>
<td>🎼</td>
</tr>
</tbody>
</table>

All musical elements associated with the cue notes will also be at cue size.

There are two ways to notate cue passages.

With reverse stem direction and added rests:

```
cue notes with opposite stem direction
```

```
3
Eng. Hn.
```

with rest

With normal stem direction and no added rests:

```
cue notes with normal stem direction
```

```
3
Eng. Hn.
```

without rest

Piano accompaniment parts may include a cue-size solo part above the grand staff.

Not all notes that are cue size are used as a cue.

Ossia passages and grace notes are typically notated at cue size. (See Ossia, Grace notes)

D.C. al Coda (da capo al coda)

Means go back to the beginning, play to the “to coda” sign (Θ), then jump to the coda to finish the piece.

1. play from beginning to D.C. al Coda

2. at double barline, return to beginning D.C. al Coda

3. 2nd time play to the to Coda Θ sign

4. Jump to Coda

5. Coda

Align the edge of the “to coda” sign flush right with the barline.

The words to Coda are often omitted from the “to coda” sign.
Place a **double barline** (thin/thin) at the D.C. al Coda. *(D.C. al Coda can also be written D.C. al Coda ✨)*

Separate the coda from the staff above (optional) and **indent**.

Align the coda sign with the beginning of the staff. It should be somewhat **larger** than the “to coda” sign.

The coda will end with a **final double barline** (thin/thick).

It is sometimes necessary to begin the coda on the same staff as the D.C. al Coda. If so, **break the staff and add a clef and key signature**. (Do not add a time signature unless it changes at the coda.)

**D.C. al Fine (da capo al fine)**

Means go back to the beginning and play to the Fine.

1. **play from beginning to D.C. al Fine**

2. **at double barline, return to the beginning**

3. **2nd time play to the final double barline**

4. **end here**

Place a **double barline** (thin/thin) at the **D.C. al Fine**.

A **final double barline** (thin/thick) is added at the **Fine**.
**D.S. al Coda (dal segno al coda)**

Means go back to the sign (§), play to the “to coda” sign (Ø), then jump to the coda to finish the piece.

1. **play from beginning to D.S. al Coda**

2. **2nd time play from the segno to the to Coda sign**

3. **jump to Coda**

4. **at double barline jump back to the segno**

The segno § should be **aligned flush left** with the barline.

Align **the edge** of the “to coda” sign **flush right** with the barline.

The words **to Coda** are often omitted from the “to Coda” sign.

Place a **double barline** (thin/thin) at the **D.S. al Coda**. **(D.S. al Coda can also be written D.S. § al Coda Ø.)**

**Separate** the coda from the staff above (optional) and **indent**.

**Align** the coda sign with the beginning of the staff. It should be somewhat **larger** than the “to coda” sign.

The coda will end with a **final double barline** (thin/thick).

**D.S. al Fine (dal segno al fine)**

Means go back to the sign and play to the **Fine**.

1. **play from beginning to D.S. al Fine**

2. **at the double barline, jump back to the sign**

3. **play from the sign to the final double barline**

4. **end here**

**D.S. al Coda**

**D.S. al Fine**
The segno should be aligned flush left with the barline.

Add a double barline (thin/thin) at the D.S. al Fine.

A final double barline (thin/thick) is added at the Fine.

**Divisi**

*Divisi* is used for instruments (such as strings) that can produce more than one note at a time, indicating that the notes should be divided among the group of instruments (i.e., instead of multiple stops).

(See Sharing a staff)

**Divisi dots**

See Tremolo

**Dotted rhythms**

See Augmentation dot

**Dynamics**

Dynamics indicate the varying degree of volume or intensity of a note, phrase or section of music.

The following lists the most common dynamics from the softest to the loudest:

- softest
- *ppp*<br>- *pp*<br>- *p*<br>- *mp*<br>- *mf*<br>- *f*<br>- *ff*<br>- *fff*<br>- loudest

Dynamics softer than *ppp* or louder than *fff* are impractical, although theoretically any dynamic is possible.

**COMBINED DYNAMICS**

Dynamics such as *mf*, *sf*, *sf* can be combined with *p* or *pp*. The resulting dynamics function as a somewhat broader form of articulation.

- *fp*<br>- *sf*<br>- *sfpp*

*fp* would mean to play loudly, then immediately play softly.

(See Articulations)

**CRESCErNO & DIMINUENDO**

The crescendo sign is wedge-shaped and opens toward the right.

The diminuendo sign is wedge-shaped and opens toward the left. (The words *diminuendo* and *decrescendo* are interchangeable, but *diminuendo* is preferred.)

- A crescendo or diminuendo sign is used when a gradual increase or decrease is wanted from one dynamic to another.

- *ppp*<br>- *fff*<br>- *mf*<br>- *p*

Musical elements should not be placed within the opening of the signs.

The word *crescendo* or *diminuendo* (*decrescendo*) may be written or abbreviated *cresc.*,

The effect is identical whether using the sign, word or abbreviation.

If space doesn't allow the use of the sign, or the passage is a long one, it is best to use the word.
A dashed line may be used if it helps clarify the length of the passage.

The word is sometimes hyphenated to extend throughout a section of music.

GENERAL PLACEMENT
Place the dynamic sign *slightly* before the notehead whenever possible.

For single-staff instruments
Dynamics are placed below the staff.

When two parts share a staff and the dynamics vary between parts, the dynamics will be placed above and below the staff.

For vocal music
Dynamics are placed above the staff to avoid conflicting with the lyric.

For the grand staff
Dynamics are placed between the two staves.

If two different dynamics are needed for each staff, the dynamics may be placed above for the top staff and below for the bottom, or in positions that clarify the situation best.
Horizontal placement is preferred for crescendo and diminuendo signs, although an angled placement is acceptable if necessary.

The signs may also be placed outside the staff if space is tight within the grand staff.

If a dynamic mark must be placed on a barline, the barline should be broken.
For crescendo and diminuendo signs, the barline is left intact.

Dynamics with crescendo/ diminuendo signs
The intensity of the increase/decrease in volume is relative to the dynamic level of the section of music.

If a dynamic is not indicated at the end of a crescendo sign, and the music is consistently gentle, the increase in volume would probably be subtle.

The level at the beginning of the sign is the same as the dynamic last indicated in the music.

It is advised to carefully begin and end the sign so that it makes sense.
While the example below would make perfect sense in a clarinet part, it would make no sense in a piano part.

Endings
See Repeat signs

Fermata
A hold or pause sign (akedown). It is used with any rhythmic value—single notes, intervals, chords or rests.

Placement
Preferred placement is above, regardless of stem direction, except when parts share a staff.
The fermata is centered on the notehead (or rest), whether it is on the notehead side or the stem side.

One fermata applies to all notes of an interval or chord.
Fermata

**Fingerings**

**GENERAL PLACEMENT**

Fingerings for the **right hand** should be placed **above** the staff, away from all musical elements.

Fingerings for the **left hand** should be placed **below** the staff, away from all musical elements.

---

**TIME VALUE**

A fermata over a note or chord not only indicates that the tempo is interrupted but that the note or chord is **sustained**.

The length of a fermata is determined by the **performer** and is relative to the musical situation.

*In a fast tempo, placed on a sixteenth note, the fermata would be a shorter value than if placed on a whole note, in a slow tempo.*

---

**USING WITH RESTS**

In the following example, the fermata prolongs silence rather than sound.

---

**ABOVE A CAESURA**

The following example is similar to the last one. The caesura indicates a small break in the sound; the addition of a fermata lengthens the break.

Occasionally a fermata is seen over a final double barline before another movement. However, since a barline has no time value, **avoid using a fermata over a single barline.**

---

**ACCOMPANYING TERMS**

**Lunga** *(long)* or **poco** *(little or short)* may be used with a fermata for a more specific intent.

These should be centered **above** the fermata.

---

---

---

---

---

---

---

---

---
Fingerings are centered above or below the notehead, when possible.

A finger number is preferably placed outside a beam.

**CHORDS**

Fingerings are stacked above or below a chord: all notes should have a fingering.

If a chord includes notes that are tied and a fingering is indicated for a note that is not tied, only that fingering is necessary.

**ALTERNATING FINGERINGS**

If a fingering changes on a note that is held, a hyphen (-) or an “en-dash” (–) separates the two fingerings. The first fingering is centered on the note; the second is to the right.

An alternate method uses a small slur instead of the hyphen or en-dash.

**USE WITH TRIPLETs**

The triplet 3 is sometimes mistaken for a fingering when the fonts are similar.

The fingering font should be smaller and of a different typeface than the font used for triplets.

Avoid positioning the triplet 3 on the same side of the staff as a fingering.

Instead of moving the fingering, move the triplet 3 to the opposite side from the fingering. The triplet 3 would normally be on the beam side; if on the notehead side it is helpful to add a bracket. (See Tuplets)
**TWO HANDS ON ONE STAFF**

If both hands share the same staff, the fingering for the right hand is above, the left hand below.

RH (right hand) or LH (left hand) may be added for clarification.

**AMOUNT OF FINGERING**

Fingering should be used sparingly and only to establish a pattern or hand position.

**OVERLAPPING ELEMENTS**

Fingerings may overlap a slur. The preference is to break the slur at the point of intersection, if possible.

The vertical space sometimes dictates that fingerings be placed within the staff. The staff lines should be broken to accommodate the overlapping fingerings.

**Flat**

See Accidentals, Key signatures

**Glissando sign**

A glissando is indicated by a wavy or straight line placed at an angle, ascending or descending.

Indicate the beginning and ending notes of the glissando.

**ADD THE ABBREVIATION**

It is helpful to add the abbreviation (gliss.), placing it at the same angle as the symbol.

**TWO OR MORE NOTES**

If the glissando affects more than one note, add a glissando symbol for each note. The word (gliss.) is used only once regardless of the number of notes.
Grace notes are small notes without a rhythmic value of their own, taking their value from the previous or following beat.

Grace notes are notated at cue size or slightly smaller (65% of normal size works well).

**SINGLE GRACE NOTES**

Single grace notes are considered eighth notes.

Place the stem up regardless of the main note’s stem direction (except when two parts share a staff).

Usually a small slur connects the grace note to the main note; the slur usually begins below the grace note.

The slur end does not need to be centered on the main notehead like slurs normally do. It may end slightly to the left of the notehead. (See Slurs)

For single grace notes with a flag, a small line can intersect the flag, always slanting upward, from left to right, regardless of stem direction. *(for a lower voice sharing a staff)*

**PLACEMENT ON THE STAFF**

The grace note is centered in a space or placed directly on a line.

Grace-note accidentals are also cue size. (See Accidentals)

Stems for grace notes on leger lines do not have to be lengthened to meet the middle line.

**SHARING A STAFF**

When two parts share a staff, the grace note stems follow the stem direction of the parts.

**MULTIPLE GRACE NOTES**

Multiple grace notes should never have a slanted line through the stems or beams. The slanted line is only for single, flagged grace notes.

If a slur is used, the slur connects all the grace notes to the main note.

Two grace notes are considered sixteenth notes and should be beamed accordingly. Three and four can be either sixteenth or 32nd notes.

Larger groupings, such as five and six grace notes, are usually beamed as 32nd notes.

**DIRECTION OF GRACE-NOTE SLURS**

If a grace note precedes an interval or chord, the slur will follow the direction of resolution (from the grace note to the appropriate main note).
WITH LEGER LINES
If leger lines are used, the slur may be placed above to avoid the leger lines.

The grace-note leger lines can be the same thickness as staff lines, but shorter.

Grand pause
The grand pause or general pause (G.P) over a measure of rest indicates that the entire orchestra is silent, often unexpectedly.

Grand staff
The grand staff is used to notate scores for instruments such as piano, organ, harp and marimba.

The grand staff consists of two staves joined by a brace and a systemic barline.
(See Brace)

Although the “normal” clefs for the grand staff are treble above and bass below, either staff may have either clef, and may change clefs at any time.
(See Clef signs)

FOR ORGAN
Organ scores use the grand staff connected to a staff used to notate music for the organ pedals.

Except for the systemic barline, barlines are separated between the manuals and pedal.

FOR INSTRUMENT & PIANO
Scores for an instrument (including voice) and piano use a grand staff, with the instrument staff above.

The staff above the grand staff is sometimes cue size, if the instrument has its own full-size, separate part.

Except for the systemic barline, barlines are broken between the instrument staff and the grand staff.

TWO-PIANO MUSIC
Two-piano music requires two grand staves joined together with a systemic barline.

The measure barlines connect staves for each grand staff only.
ONE PIANO—FOUR HANDS
Facing pages are required.
The Secundo part is notated on the left-hand page; usually both staves are in bass clef.
The Primo part is notated on the right-hand page; usually both staves are in treble clef.

The page layout for primo and secondo is preferably identical, system-for-system; if they are not identical, the facing pages must begin and end with the same measures.

ARTIFICIAL HARMONICS (STRINGS)
A diamond-shaped notehead with a standard notehead comprises an artificial harmonic. The standard notehead indicates the placed finger; the diamond indicates where the second finger lightly touches the node to produce the harmonic.

Often the sounding note is indicated in cue size and in parentheses.

Harmonics
NATURAL HARMONICS
Natural harmonics are indicated by a small circle centered above the notehead.
The indicated note is the SOUNDING NOTE.
Key signatures

Key signatures appear after the clef but before the time signature.

CHANGING KEYS

The preference is to make key changes at the beginning of a staff or system, with a courtesy key signature at the end of the previous one.

1. A key change is traditionally preceded by a double barline.

2. If the key change is at the beginning of a staff or system, a courtesy key signature is placed at the end of the previous one.

3. The staff is left open after the courtesy key signature.

4. The new key signature is indicated on the next staff.

If a key changes mid-staff:
1. A double barline is added,
2. followed by the new key signature.
3. The new key signature continues on the next staff.

CANCELLATIONS

Cancellations are no longer considered necessary, unless the new key is C major or A minor (no sharps or flats). In that case, cancel the old sharps or flats with natural signs, in the same order as the old key signature.

The following illustrates the positioning of the clef, key signature and time signature if all three change simultaneously.
Key signatures in the **TREBLE CLEF**

1.  
2.  
3.  
4.  
5.  
6.  
7.  

Key signatures in the **TENOR CLEF**

1.  
2.  
3.  
4.  
5.  
6.  
7.  

Key signatures in the **BASS CLEF**

1.  
2.  
3.  
4.  
5.  
6.  
7.  

Key signatures in the **ALTO CLEF**

1.  
2.  
3.  
4.  
5.  
6.  
7.
THE CIRCLE OF FIFTHS

The Circle of Fifths serves as a quick reference guide to the relationship of the keys and key signatures, and how they can be figured out in a logical manner.

The Circle of Fifths will also help to clarify which keys are enharmonic equivalents. (Enharmonic means notes that sound the same but are written differently.)

Clockwise movement (up a perfect 5th) provides all of the sharp keys by adding one sharp to the key signature progressively.

Counter-clockwise (down a perfect 5th) provides the flat keys by adding one flat similarly.

Leger lines are used to extend the range of the five-line staff.

Leger lines are the same line weight as staff lines, or slightly heavier.

The vertical spacing of leger lines must be identical to the vertical spacing between staff lines.

Leger lines extend slightly past the notehead. They will need to extend sufficiently enough to be seen.

STEM LENGTH

Stems of all notes ABOVE or BELOW the first leger line past the staff must extend at least to the middle staff line.

OVERCROWDING

To avoid leger lines that touch, adjustments must be made either in the horizontal spacing of the music or by shortening the leger line length. The first is preferred, but is not always possible.
Lyric

In the first example below, the leger lines are overcrowded and appear to be touching.

Corrected by shortening the leger lines to create a slight amount of space between the lines.

CLEF CONSIDERATIONS

Choose the appropriate clef for the situation. The viola, for instance, may be written in alto clef to avoid excessive leger lines. (See Clefs)

The following examples illustrate the same musical example in three different clefs.

PLACEMENT OF STAFF INDICATIONS

Dynamics and tempo indications go above the staff to avoid conflicting with the lyric.

USE OF SLURS

Slurs are seldom used in a vocal part for anything other than a melisma (a term used here simply to mean a syllable or word that is sung to more than one note).

ALIGNMENT OF LYRIC FOR MELISMA

Another help in reading a melisma is the proper alignment of the lyric. The word or syllable, instead of being centered under the note, should be aligned flush left with the left edge of the notehead (see above).

EXTENDER LINES

In addition to the slur, extender lines at the baseline of the lyric help to show the length of a melisma. However, extender lines are only used for one-syllable words, or for the last syllable of a word. A hyphen is used in the middle of a word.

The thickness of extender lines should be less than that of the staff lines.

The end of the extender line should be aligned flush right with the last note of the melisma. The most common mistake in the use of lyric extender lines is to extend the line for the full value of the note.

Lyric

Beaming of notes associated with a lyric now follows standard notational practice.

Traditional practice, now obsolete, was to use flags for eighth notes, sixteenth notes, etc. Beams were used only for melismas.

However, in several other ways the lyric makes the notation of a vocal part different from that of other parts.
When an extender line is called for, there should always be one, even if the words are crowded and it has to be very short. (In this case, the line can extend slightly past the note.)

When an extender line wraps to the next staff, begin the line at the end of the key signature.

Notice the comma in the previous example. Any punctuation always precedes an extender line.

TIES

Ties are treated exactly like melismas, including the use of extender lines and alignment of lyric.

WORD PLACEMENT (NORMAL)

Words or syllables for notes other than melismas or tied notes are centered to the notehead. If the lack of space does not allow a word or syllable to be exactly centered, at least some part of the word or syllable should be under the note.

HYPHENATED WORDS

Center the hyphen (not a dash or extender line) between syllables.

If the melisma (or tie) is extremely long, more than one hyphen may be used.

If the hyphenated word wraps to the next line, another hyphen may be used at the beginning of the line.

Hyphenate words according to the dictionary. Do not hyphenate according to how the word sounds like it should divide. If there is any question at all, check the dictionary.

PUNCTUATION

Use normal punctuation and capitalization. (Sometimes capitalization is done as if the words were poetry, with each "line" capped, but this is becoming less common.) A common mistake is to use little or no punctuation.

MULTIPLE VERSES & REPEATS

Broken slurs

A broken slur is used when one verse has a melisma, especially if it is not the first verse.

Treat the lyric for each verse separately. Notice in the above example that the melisma is aligned as a melisma, while the previous verse is aligned normally.

Omission lines

An omission line is sometimes used to clarify that there is no word or syllable sung.

In many cases, however, there is a better way to treat the situation. In the previous example, the omission line could be mistaken for an extender line, so it would be better without it, letting the cue-size rest serve the same purpose.
Cue-size notes, rests

Use cue-size notes and rests when a rhythm is different from the first verse (see previous example). Stems and beams should also be cue size.

If there are more than two verses with different rhythms, the notation can become quite complicated. It may be better to write out the music.

Numbering

Multiple verses are numbered. There are several ways to treat these when there are pick-ups, repeats, first and second endings, etc. Be clear and consistent.

→ 1. Verse, verse, verse
→ 2. Verse, verse, verse
→ 3. Verse, verse, verse

Using a brace

When multiple lines converge into one line, such as a chorus or refrain, a brace is used.

→ 1. Verse, verse, verse
→ 2. Verse, verse, verse
→ 3. Verse, verse, verse

**Meter**

The understanding of meter is essential to the placement of ties, rests, syncopated rhythms and proper beaming.

Time signatures identify the meter.

There are two overall classifications of meter: **perfect** and **imperfect** (odd) meter.

**PERFECT METER**

In perfect meter the measure can be divided into equal halves or thirds.

There are two classifications of perfect meter: **simple meter** and **compound meter**.

In simple meters each BEAT can be subdivided by 2.

In compound meters each PULSE can be subdivided by 3.

*Metric subdivisions should not be confused with tuplets.*

**SIMPLE METER**

The classification of duple, triple or quadruple reflects the number of BEATS in the measure.

**Simple duple meter**

Simple duple time signatures have a 2 as the upper number of the time signature.

Each measure contains 2 BEATS.

Each BEAT can be subdivided by 2.

Only rests of equal value to the beat or less may be used (except in a complete measure of rest, which is indicated by a whole rest).

Rests of equal value to the beat are used ONLY on the beat.

The following are all acceptable examples in simple duple meter.

Quarter note is acceptable, but not a quarter rest.
Simple triple meter

Simple triple time signatures have a 3 as the upper number of the time signature.

\[
\frac{3}{2} \quad \frac{3}{4} \quad \frac{3}{8}
\]

Each measure contains 3 BEATS.

Each beat can be subdivided by 2.

Only rests of equal value to the beat or less may be used (except in a complete measure of rest, which is indicated by a whole rest).

Beaming should reflect the simple triple meter, NOT compound duple meter.

Simple quadruple meter

Simple quadruple time signatures have a 4 as the upper number of the time signature.

\[
\frac{4}{2} \quad \frac{4}{4} \quad \frac{4}{8}
\]

Each measure contains 4 BEATS.

Each beat can be subdivided by 2.

To successfully notate simple quadruple meter, it is best to consider the meter as a combination of 2 units of duple meter.

In simple quadruple meter, these 2 units must always be clearly distinguished. The only exception to this would be a very simple syncopation (such as \( \frac{3}{4} \)).

The following examples illustrate the subdivision of the 2 units. The notation of each unit, separately, is identical to that of simple duple meter.

Whole rests are used to indicate a complete measure of rest.

Rests twice the value of the beat are used ONLY on beats 1 & 3 (the first beat of each half of the measure).
Rests of equal value to the beat can ONLY appear on the beat.

Rests less than the value of the beat are used freely as long as the two units are apparent.

do not combine rests

Rests of \( \frac{2}{3} \) the value of a pulse may be used ONLY on the pulse.

Rests of equal value to the beat, not appearing on the pulse, CANNOT be combined.

Beaming should reflect the compound duple meter, NOT simple triple meter.

Compound triple meter

Compound triple time signatures have a 9 as the upper number of the time signature. An example is \( \frac{9}{8} \).

Each PULSE can be divided into 3 BEATS.

Rules governing rests and beaming are identical to compound duple meter.

Compound meter

The classification of duple, triple or quadruple reflects the number of PULSES in the measure.

Compound duple meter

Compound duple time signatures have a 6 as the upper number of the time signature.

Each measure contains 2 PULSES.

Each PULSE can be divided into 3 BEATS.

Only rests of equal value to the pulse or less may be used (except in a complete measure of rest which is indicated by a whole rest).

Rests of equal value to the pulse can ONLY appear on the pulse.
Compound quadruple meter

Compound quadruple time signatures have a 12 as the upper number of the time signature. An example is $\frac{12}{8}$.

Each measure contains 4 PULSES.
Each PULSE can be divided into 3 BEATS.

To successfully notate compound quadruple meter it is best to consider the meter as a combination of 2 units of compound duple meter.

A composite meter is another option to clarify the subdivision of imperfect meters.

When two or more measures alternate meters in a manner that repeats predictably, a time signature reflecting the alternating meter may be used.

IMPERFECT METER (ODD METER)

In imperfect meter (odd meter) the measure CANNOT be divided into equal halves or thirds.

Imperfect meter can be considered as any combination of duple or quadruple meter AND triple meter.

$\frac{7}{8}$ time can be considered a combination of $\frac{2}{8} + \frac{5}{8}$ or $\frac{3}{8} + \frac{4}{8}$.

Notice that 7 is not divisible by 2 or 3.

MODERN APPROACHES TO METER

A broken barline is sometimes added to clarify imperfect meters.

A composite meter is another option to clarify the subdivision of imperfect meters.

Metronome marks See Tempo marks

Natural sign See Accidentals

Notes

Traditionally there are five main shapes representing noteheads:

<table>
<thead>
<tr>
<th>Pitched</th>
<th>Non-pitched</th>
</tr>
</thead>
<tbody>
<tr>
<td>o whole note</td>
<td>o whole note, half note</td>
</tr>
<tr>
<td>o half note</td>
<td>x quarter, eighth, sixteenth, 32nd, etc.</td>
</tr>
<tr>
<td>o quarter, eighth, sixteenth, 32nd, etc.</td>
<td></td>
</tr>
</tbody>
</table>

Placement on the staff

On a five-line staff, notes are either in a space or on a line.

in a space

on a line
On a single-line staff, the notehead usually intersects the line, with the stem always up.

When two instruments share a staff, one part sits on the line; the other hangs from the line.

---

**STEMS AND NOTEHEADS**

Double whole notes (or breves) and whole notes are without stems.

- Double whole note
- Whole note

Half notes and quarter notes are always stemmed.

- Half note
- Quarter note

Single eighth, sixteenth, 32nd and 64th notes are always stemmed and with a flag(s).

- 8th note
- 16th note
- 32nd note
- 64th note

Two or more eighth, sixteenth, 32nd and 64th notes are usually beamed into groups.

- 8th note
- 16th note
- 32nd note
- 64th note

---

An X notehead is used primarily in non-pitched percussion music. It is also seen in vocal music to indicate approximate-pitched singing (Sprechstimme), rhythmically spoken parts, clapping, etc.

The diamond-shaped notehead serves as a half note (with stem) or whole note (without stem).

When used as a harmonic, the diamond-shaped notehead is always open, whatever the rhythmic value.

In some software programs the characters for the diamond-shaped notehead and the harmonic are slightly different.

---

**Octave signs**

The use of octave signs is primarily to avoid multiple leger lines. While frequently used in piano music, octave signs are only selectively used in instrumental music.

- 8va or all'ottava means “at the octave.”

8va (or sometimes 8) is indicated above a treble clef staff only. Do not use above any other clef.

Usually accompanied by an extender line—a broken line with a downstroke at the end.

The alignment of the 8va is centered above the notehead.

The end of the 8va bracket extends slightly past the last note affected.
8va bassa or ottava bassa means “at the octave below.”

8va (or 8) below the staff, especially in keyboard music, is always understood to mean 8va bassa.

8va bassa is indicated below a bass clef staff only. Do not use for treble, alto or tenor clefs.

Usually accompanied by an extender line—a broken line with an upstroke at the end.

The beginning of the 8va bassa is placed below the notehead.

The end of the 8va bassa line extends slightly past the last note affected.

The abbreviation 8vb is only a copyist’s shorthand and should not be used in engraved music.

PLACEMENT CONSIDERATIONS

The 8va or 8va bassa with its extender line should be clearly placed, to avoid conflict with as many musical elements as possible and yet be as close to the notes affected as possible.

In the example below, the 8va is placed entirely above the slur.

In this example, the 8va intersects the slur due to a possible limitation of space.

WITH ACCIDENTALS

Accidentals must be repeated for the notes included within 8va or 8va bassa octave alterations.

WRAPPING FROM STAFF TO STAFF

The 8va or 8va bassa breaks at the end of the first staff, aligned with the right barline.

The extender line begins again just past the clef or key signature.

A courtesy 8va or 8va bassa may also be indicated at the beginning of the second staff when wrapping from staff to staff.

LOCO

Although the ending of the extender line should suffice, the word loco (meaning “at place”) may be added as a reminder that the 8va or 8va bassa no longer applies.
ON AN ENDING NOTE

The 8va or 8va bassa is centered to the notehead and, since it is the last note of the piece, it may or may not be accompanied with a downstroke (or upstroke).

If a single note is altered but is not the last note of the piece, an upstroke (or downstroke) must be added.

SPECIAL SITUATIONS

The following examples are incorrectly notated. The 8va or 8va bassa is never placed between the two staves of a grand staff.

These two incorrect examples would need to be rewritten—perhaps in one of the following ways:

WITH RESTS

If the 8va or 8va bassa is interrupted with short rests, the extender line may continue over them.

If the rests are of a larger value, the line should be broken and reintroduced.

When rests precede the 8va or 8va bassa, begin on the first note after the rests.

When rests follow the 8va or 8va bassa, the octave alteration ends with the last note in the grouping—the rests should not be included in the grouping.

CUE SIZE

For any passage at cue size the 8va will likewise be at cue size.
15MA

15ma or quindicesima means “at the fifteenth” (two octaves). The situations to use 15ma bassa are very rare.
All rules for 8va apply to 15ma.

COLL’ 8VA

Coll’ 8va (or coll’ 8) is an abbreviation for coll’ ottava meaning “with the octave.” It is a shorthand system of writing octaves, discouraged in traditional engraving.

The function of coll’ 8va differs from 8va in that the written notes are doubled at the octave.

For the extender line, a longer dash length or a solid line is recommended, to make the coll’ 8va distinguishable from 8va.

The coll’ 8va doubles at the octave above when notated in the treble clef.

The coll’ 8va doubles at the octave below when notated in the bass clef.

INSTRUMENT CONSIDERATIONS

ORCHESTRA / BAND SCORES

Often a score will have limited space, causing leger lines to become too crowded and illegible. Octave signs help to eliminate vertical overcrowding.

WOODWINDS

Wind players prefer to read leger lines.

STRINGS

Octave signs should be used very sparingly for viola and cello. Violins are accustomed to reading either leger lines or 8va (but not 15ma).

KEYBOARD INSTRUMENTS

Celesta uses 8va but not 8va bassa (the range does not extend low enough).

Harpsichord rarely uses 8va or 8va bassa. Leger lines are more commonly used.

Piano uses 8va and 15ma in the treble clef and 8va bassa in the bass clef.

Organ uses 8va but not 8va bassa (the range does not extend low enough).

Ornaments

Ornaments are primarily used in Baroque, Classical or Romantic period music. The interpretation of an ornament varies according to the musical period or composer. It is advised to consult detailed references on ornament usage and interpretation.

Ornament symbols are placed above the staff regardless of stem direction.

When two parts share a staff, an ornament symbol applying to the lower part is placed below the staff.
Ornaments are usually centered to the notehead. Depending upon the position of the ornament, the realization of the ornament will vary.

In the example below, the turn symbol is presented two ways, centered above the note and positioned after the note. Notice the different realizations of the ornament.

**Ossia**

Ossia is an indication for an alternate version, which may be easier or more difficult. It is treated the same as a realized ornament.

The ossia passage is placed above the full-size staff. The passage is cue size (65–75%). Only the passage concerned is notated—the staff begins directly before and ends directly after. Align all beats.

**Pedal marks**

FOR THE PIANO

There are three pedals on a grand piano: the damper pedal (right), the sostenuto pedal (center) and the una corda pedal (left). Some upright pianos have only two pedals—the damper and una corda.

**Damper pedal**

Markings for the damper pedal (sustain pedal) are always placed below the grand staff and are usually placed below all other musical elements.

The most commonly used pedal marks consist of three elements: pedal down, pedal change and pedal up.

The pedal-down marking begins vertically aligned with the left edge of the notehead. The point of the pedal-change marking is vertically aligned with the center of the notehead.

*Some publishers center or align flush right. In any case, a style decision should be made.
The pedal-up marking is vertically aligned to the left of the notehead.

If the pedal mark continues to the end of the piece, it is vertically aligned with the thin line of the final double barline.

The traditional method of pedal marking consisted of pedal down and pedal up. This method is somewhat obsolete.

Drawbacks of this method of pedal indication include the potential for inaccuracy and a cluttered look.

Simile

When the pattern has been clearly established, simile may be used instead of continuing the pedal marks. (See Simile)

If the pattern changes, simply begin the pedal marks again.

Half pedal

The clearest indication is to simply add "1/2" to the pedal marking, whether at the down pedal or at the pedal change.

Una corda pedal

The indication una corda (one string) or u.c. is placed where the pedal is pressed; tre corde (three strings) or t.c. indicates the return to normal.

Sostenuto pedal

This is indicated by the abbreviation sos. (sometimes in combination with a bracket).
FOR THE ORGAN

Two symbols are used, one for the heel, one for the toe.

\[
\begin{array}{ll}
\text{heel} & \text{toe} \\
U & \wedge
\end{array}
\]

The symbols are NOT inverted when moved from one side of the staff to the other.

The pedal marks for the right foot are always placed above the staff and centered on the notehead.

\[
\begin{array}{ll}
\text{right-foot heel} & \text{right-foot toe} \\
U & U \\
\wedge & \wedge
\end{array}
\]

The pedal marks for the left foot are always placed below the staff and centered on the notehead.

\[
\begin{array}{ll}
\text{left-foot heel} & \text{left-foot toe} \\
U & U \\
\wedge & \wedge
\end{array}
\]

HARP PEDALS

Pedal indications for harp are settings for tuning.

The left and right foot have separate sets of pedals.

Notation for the harp is closely linked to the position of each of these pedals. Therefore, enharmonic spellings are frequent in harp music.

The tuning of the harp is based on the three notch positions of the pedals.

When a pedal is raised, the note is lowered a half step (loosens the string).
When a pedal is lowered, the note is raised a half step (tightens the string).

The following three examples illustrate possible ways to indicate harp pedal settings in a score.
They may be listed horizontally, stacked or using the Salzedo diagram.

Picking

Picking is notated with down-stroke and up-stroke symbols. The same symbols may be used as those that are used for down-bow and up-bow.

Down-stroke and up-stroke indications are centered to the notehead and are always placed above the staff.
Repeat signs

Indications for repeats occur on three levels: beat repetitions, measure repetitions and section repetitions. The first two are used almost exclusively in manuscript or in popular music.

BEAT REPETITIONS

Angled slashes following a single beat indicate that whatever is written on the first beat is to be repeated. These are commonly used in manuscript. Do not use in engraved music.

Another use of beat repeats is in guitar or rhythm parts, where they help pinpoint where chord changes occur. These are used in engraved music. Stems, beams and ties may be used when necessary.

ONE-MEASURE REPEAT

This sign (ɔ), meaning repeat the previous measure, consists of a slash with two dots and is centered in an otherwise empty measure. In engraved music, its use should be limited to rhythm parts.

When several consecutive measure repeats are used, numbering is helpful. Place a small number above the staff and center it on the measure repeat sign.

The notated measure is considered the first measure, with the actual numbering beginning on the first repeated measure.

Write out the music at key points such as rehearsal numbers, page turns, etc.

TWO-MEASURE REPEAT

When two measures are to be repeated, a sign consisting of two slashes with dots is placed on the center bar line of two otherwise empty measures, with the number 2 above it. The number is in the same typeface and size as a time signature number.

This sign should not be used when one measure is to be repeated twice. It should only be used for two consecutive measures that are different, and are to be repeated. In engraved music, it should only be used in rhythm parts.

If more than two measures are to be repeated, the repeat sign should be used.

SECTION REPETITIONS

The repeat sign is used to indicate the repeat of one or more measures, or an entire section.

The repeat sign looks like a final double bar line, with two dots positioned in the spaces above and below the center line of the staff.

The right-facing repeat sign is placed at the beginning of the first measure of the section to be repeated. The left-facing sign is placed at the end of the last measure of the same section.

Thus, the section that is to be repeated is framed by the inward-facing repeat signs.

*If the repeat begins at the beginning of a piece, the right-facing sign is not needed.
For two adjoining repeated sections, repeat signs are placed, as before, framing each section. The adjoining repeat signs may share the thick bar.

With key changes
When a key signature change occurs at the beginning of a repeated section, a double bar is added and the key signature is placed before the first repeat sign.

With multiple endings
A section that is repeated may have a different ending each time it is played. The repeat sign is placed at the beginning of the section and at the last bar line of the 1st ending.

The brackets do not intersect or touch the staff but are placed above the staff, avoiding all musical elements. They are aligned vertically with the barlines. 1st ending brackets are always closed. If the 2nd ending is not the end of the piece, the bracket will be open-ended.

If it is the end of the piece (or movement), the bracket will be closed.

If a section is played three or more times but there are only two endings, number the brackets accordingly. This occurs often when there are lyrics.

Rests
This section deals mainly with the positioning of rests. For more on the use of rests, see Meter and Augmentation dot.

TABLE OF RESTS
In the listing of rests below, each rest is half the value of the previous rest, starting with the double whole rest.

- double whole rest whole rest half rest quarter rest
- eighth rest sixteenth rest 32nd rest 64th rest

DOUBLE WHOLE REST (BREVE)
The double whole rest is placed between the third and fourth staff lines, touching both lines.

WHOLE REST
With the exception of and , the whole rest is used to signify a complete measure of rest in any time signature.
It **hangs** from the fourth staff line.

Whole rests are **centered in the measure.**

When two parts share a staff, whole rests are positioned on the **fifth line for the top** part and the **first line for the bottom.**

If either part conflicts with the placement of the rest, the rest may be **positioned outside the staff.**

**HALF REST**

The half rest is positioned to **sit on the third staff line.**

When two parts share a staff, the half rest will sit on **either the fifth line or the first line.**

If either part conflicts with this placement, the rest may be positioned **outside the staff.**

Half rests are **positioned at the beginning of beat 1 or 3**—never centered between two beats.

In the above example the use of half rests instead of two quarter rests is correct. However, meter must be considered—do not automatically substitute a half rest for two quarter rests.

(See Meter)

**QUARTER REST**

The quarter rest is positioned as follows. Notice the position of the bottom hook.

When two parts share a staff, the quarter rest is moved **up or down** from its normal position. The **relationship** of the rest to **lines and spaces** must be the same as in normal position.

The rest may be completely outside the staff when necessary.

In some situations the above rests could be left out entirely. In other situations, if both parts were resting, one rest in normal position could serve for both.
EIGHTH, SIXTEENTH & 32ND RESTS
The guidelines for positioning quarter rests in the example above also apply for eighth, sixteenth and 32nd rests.

The hook of these rests is always placed in a space (or between imaginary leger lines if placed outside the staff).

If one of the above rests interferes with a beam, the rest moves up or down so that stem lengths may be more normal. Other rests in the measure remain in normal position.

MULTIPLE-MEASURE RESTS
For a rest of more than one measure, a horizontal line (the thickness of a beam) is placed on the middle staff line, with a thinner vertical line at each end extending from the second to the fourth staff line.

A number the size and font of a time-signature number is placed above the staff and centered in the measure.

Break the multiple-measure rest for rehearsal numbers, tempo changes, etc.

RESTS ON A SINGLE-LINE STAFF
When there is only one part on a staff, position the rests as follows:

On a complete score all parts are included on a system and are arranged in a certain order.

All information contained on the parts and score must be identical.

On the first page of the score the system (or first system) is indented. Brackets connect instrument choirs. (See Bracket, Systems)

The full name of each instrument is given to the left of the first system.

Abbreviations are substituted for the full instrument names on subsequent systems.

Rehearsal numbers (indicated at the top of the score) serve as key reference points.

They may be letters or measure numbers enclosed in a circle or square.

All extracted parts will have identical rehearsal numbers.

SCORE ORDER
Instruments should be arranged in what is known as score order.

Woodwinds
Brasses
Percussion
Other instruments
Strings

Each family of instruments is predominantly grouped together from highest-pitched instruments to lowest-pitched instruments, with some traditional exceptions.

The French horns, although not the highest-pitched, are traditionally placed above the other brass instruments.
Sharing a staff

In band or orchestra music some parts of instrument families share the same staff. Combine parts 1 & 2 or 2 & 3; avoid combining three instruments on one staff.

BEGINNING A PASSAGE

If parts are divisi, no indication is necessary unless one or both instruments (such as strings) can play more than one note at a time. (See Divisi)

Indicate a2 above staff if both parts play in unison. Use only one stem per note.

If the unison continues after a page turn, repeat a2 in parentheses.

If like instruments are sharing a staff and only one part plays, indicate which part: I. or II.

If unlike instruments are sharing the staff and one part plays, indicate which instrument is playing.

OSTEMMING OF TWO PARTS

If two parts are playing different pitches but the same rhythm, they share one stem.

If the parts are alternating between unison and divisi, and share the same rhythm, opposite stem direction makes the unisons clear.

From Two Parts to Unison

Opposite stem direction is used for clarity on unison notes in short passages.

Indicate a2 above staff and use one stem for longer passages.

From Two Parts to One:

Use rests in shorter passages.

Place I. or II. above the staff and use one stem (for two like instruments in longer passages or after long rests).
Mark passage with instrument name (for two unlike instruments in longer passages or after long rests).

STAFF INDICATIONS

Staff indications (dynamic, slurs, tempi) are placed below the staff.

WHEN NOT TO SHARE A STAFF

1. If the range of one part tends to cross the range of the other, the parts should have separate staves.
2. If the parts require different clefs or clef changes the parts should be separated.
3. If the two parts are too rhythmically diverse, they should be separated.

In all cases a bracket should be used, not a brace.

Sharp

See Accidentals

Simile

When the word simile is indicated after a pattern has been established (for example, of articulations, pedal marks, bowing, etc.), it means to continue in the same manner. (See Articulations, Pedal marks)

Slurs

Although a slur looks somewhat like a tie, the placement, positioning and use of slurs are different from ties. Slurs and ties should not be confused.

Slurs are used to indicate phrasing or technique. Depending on the instrument, the slur will imply different techniques to be used.

PLACEMENT OF SLURS

The stemming of the notes is the main factor in determining whether the slur is to be placed above or below.

When stems extend up, the slur is placed under, on the notehead side.

When stems extend down, the slur is placed over, on the notehead side.

When stems are in both directions, the slur is always placed over.
If the notes are whole notes, imagine the stems!

If the phrase is substantially long, the slur may be placed over, regardless of stem direction.

BEGINNING FROM THE STEM
Place the beginning of the slur so it starts mid-stem (to the right of the stem—never begin to the left, crossing the stem).

In some cases the slur may begin at the end of the stem.

PLACEMENT ON THE NOTEHEAD
Slurs have a definite beginning and ending; they should not be “hanging in space” so that the beginning and ending notes must be guessed at.

If the slur is on the notehead side, the beginning and ending of the slur should be centered on the notehead. It should not touch the notehead.

ENDING ON THE STEM
Place the end of the slur so it slopes towards the notehead, away from the end of the stem. Center the slur on the notehead.

The slur may also end at the end of the stem if it would make a more pleasing shape.

End at the end of the stem if beaming is involved. Never cross the beam with a slur.
SLUR DIRECTION
If the direction of the phrase ascends, the slur will slope upward. If the direction of the phrase descends, the slur will slope downward.

When a slur begins and ends on the same note, the slur can remain on the same horizontal level.

SLURS WITH CHORDS
Only one slur is needed when there is only one stem per chord.

SHARING THE SAME STAFF
For two parts, place slurs above for the upper part, below for the lower part.

For two sets of parts, place slurs above for the upper parts, below for the lower parts.

WRAPPING FROM STAFF TO STAFF
Align the end of the slur with the end of the staff. The slur ends at an angle (ascending or descending) at the end of the staff.

Continue the slur in the lower staff immediately after the key signature (or clef), also at an angle. Be sure the first note is far enough to the right so that it is very clear that the slur does not begin on the note.

If the slur is over the staff it remains over when continuing on the next staff. If it is under, it remains under on the next staff.

The direction of the slur (ascending or descending) continues logically in the following staff.
DIFFERENTIATING SLURS FROM TIES

When slurs and ties are both involved in a chord progression such as the following, position the slur opposite to the tie and at a noticeable angle.

slur must be moved opposite to the tie

\[\text{slur opposite to tie} \]

An even better way to write the above:

\[\text{correct} \]

If a slur begins and ends on the same pitch and could possibly be mistaken for a tie, position the slur on the stem side.

slur is moved above to avoid being mistaken for a tie

\[\text{slur on stem side} \]

When a slur connects chords with tied notes within, combine the tied notes into a single note with opposite stem direction.

\[\text{slur combines tied notes} \]

BEGINNING OR ENDING WITH A TIE

A slur must include both notes of the tie, whether the tie is at the beginning or at the ending of the slur. (For an exception, see "Elisions," on the next page.)

\[\text{slur includes both notes of the tie} \]

ELISIONS

In keyboard music, one slur might end at the same point where another slur begins. The two slurs share the center of the note-head (elide) without touching each other.

\[\text{slurs share center of note-head} \]

When the elision occurs on tied notes, the first phrase may end on the first tied note. The second phrase can then begin on the second tied note.

\[\text{slurs share center of tied notes} \]

GRACE-NOTE SLURS

Grace notes may or may not have slurs. The slurs are usually somewhat smaller to match the grace notes.

Since grace notes are always stemmed up (unless there are two voices), the slur is usually placed below.

Grace-note slurs may be placed more to the inside edges of the noteheads.

\[\text{grace-note slur} \]
Grace-note slurs elide with slurs.

Fermatas are placed outside the end of a slur.

"LET RING" SLURS

The use of a short slur to indicate continued vibration should be placed on notes of longer duration only. Angle the slur slightly.

INSTRUMENT CONSIDERATIONS

Woodwinds and brass

Legato technique is indicated by the use of a slur. The slur might also indicate breathing and phrasing.

Slurs in combination with staccato or tenuto marks show varying degrees of legato.

For keyboards

If the space between the two staves is limited, slurs may be placed outside the staff.

Articulations between the beginning and ending notes remain inside the slur.
An S-shaped slur is sometimes used in music notated on the grand staff.

For strings
Slurs can only partially indicate phrasing. Slurs are also used to indicate various bowing techniques. (See Bowing)

For vocal music
A slur is used for a melisma (two or more notes that are to be sung on a single syllable).

The word or syllable should be placed flush left with the notehead.

Slurs to indicate phrasing in vocal music are seldom used. Since breathing is a major factor in phrasing, rests and breath marks can be used as a partial indicator of phrases. Slurs can be drawn using a broken line instead of a solid one. The broken slur is most often used to accommodate lyrics for multiple verses.

Similarly, broken slurs may also be used for syllable differences of translated text.

Spacing is of primary importance to the visual quality of any musical notation. While the attention to musical detail may be excellent, poor judgment in spacing may make the score look ill-conceived.

An awareness of spacing occurs on many levels, from the smallest element (the beat) to the largest (the score or book). The desired effect is that the notation and layout will immediately convey the musical intent. Ultimately, any score should look accessible regardless of the level of difficulty.

PROPORTIONAL SPACING
The concept of proportional spacing takes into consideration the mathematical spacing of a beat, measure and system, in relation to the density of activity (the number of notes per beat, measure and system).

With proportional spacing, a half note, for example, must get more space than a quarter note, but not twice as much.

SPACING WITHIN THE MEASURE
Notes are spaced within the measure according to a compromise between two extremes:

1) Space given according to note-value (for example, a half note getting twice as much space as a quarter note).

2) Equal spacing given to each note.

Compare the normal (proportional) spacing with the two extreme examples.

*Make sure that consecutive notes of equal value have equal space following each note.
MEASURES WITHIN THE STAFF
The size of the measure within the staff is determined according to a compromise between two extremes:
1) Equal space for each measure.
2) Measure size based on note density only.

Normal spacing of measures

Wrong: spaced according to equal measure size

Wrong: spaced according to measure density only

VERTICAL SPACING
Between staves
Musical elements (notes on leger lines, articulations, slurs, pedal marks) projecting beyond a staff should never conflict with the elements of another staff or system. There should be enough space allowed for ease of reading.

Inside systems
On the other hand, the staves of a system should not be too far apart. This is especially important for a system that is to be read by one performer—a keyboard player, for example. The eye should not have to jump too far from one staff to the other, in order to read notes for the right and left hand simultaneously.

The most common misjudgment is to place staves (or systems) exactly the same distance from one another without adjusting to compensate for the projecting musical elements.

Between systems
More space should be provided between systems than between the staves of the systems.

The spacing between systems should be balanced, with the page margins and the number of systems on the page in mind. If the page is dense, the systems will be closer to each other and to the minimum vertical margins, while allowing enough distance between systems to distinguish one from another. If the page is sparse, the upper and lower page margins could be larger.

GENERAL PAGE LAYOUT
Page numbers
The position of the page number in relation to the page edges should never change, regardless of page spacing. Printers can use the page number as a guide for positioning the image area on the page.

If page numbers are placed to the left and right, as is usual, even numbers are always to the left, odd numbers always to the right. Page numbers may be centered, but this is not the usual practice. Centered page numbers interfere more with the music and text.

Page numbers should be positioned no closer than 1/4 inch from the top (or bottom) of the page edge.

Title page
The title, credits, copyright and any accompanying text can be vertically adjusted to accommodate a loosely spaced page or a tightly spaced page. Such type should always be well placed, considering the space allowed.

Facing pages
Facing pages should look good together. As much as possible, they should have a balanced look (notes on a system, number of systems, white space, etc.). The vertical page margins should be the same if at all possible.

Page turns
It is very important to lay out the measures and systems in a manner that will allow a good page turn. Having rests in the last measure before the page turn is the most desirable. Second to rests would be perhaps a whole note (that could be held with the pedal) or a sparse measure—anything that would allow a hand to be free to turn the page.

Try to minimize the number of page turns by adjusting the amount of music on the page or by changing the sequence of pieces.
Book layout
Calculating the number of pages needed or what will work in the allowed number of pages is crucial to an appealing layout.

If a book contains many short pieces and a particular order is not important (or can be adjusted slightly), there are several things that can be done to make a good layout.

Often a piece can be **condensed or expanded** to offer choice page turns and good facing pages.

Consider reordering the pieces to **minimize the number of page turns**. **Group pieces** with an odd number of pages together so that the ones with an even number of pages can have facing pages.

A poorly placed piece at the beginning of a book can throw off the facing pages for the rest of the book.

Backing up
Expect to go back and adjust **various elements** (page turns, systems, staves, measures or notes within a measure) when planning a layout for a book. A change in the order of pieces and the number of pages might create density problems on other pages.

*The part must be considered with the whole and the whole considered with the part.*

White space
With experience comes the **appreciation of white space** on a page or within a book. There is nothing more daunting than overwhelming density. The eye should be guided from note to note, measure to measure, staff to staff and page to page with a minimum of surprises. If a performer must stop playing in order to understand the notation, or loses his place because of poor placement, the notation and layout are *not* successful.

---

**Staff**

The staff commonly consists of five lines.

The **staff line weight** should be thick enough to be clearly legible but thin enough for the notes of the staff to be easily read.

A staff line will be **thicker than stem lines** and **equal to** (or thinner than) **barlines**.

If a note is on the line, the line will always run through the **center of the notehead**, regardless of the note value.

A **notehead in a space** is always clearly positioned between the two staff lines.

A **one-line staff** is used for non-pitched percussion.

---

**Staccato**

See Articulations
**Leger lines** extend the range of the staff.

```
leger lines \-\-\-\-
```

**Barlines** divide the staff into measures.

```
\-
```

A **clef** placed on a five-line staff determines the pitches for each line and space.

```
middle C  middle C  middle C
```

A **key signature** determines the key of the music notated on the staff.

```
\#\#\#
```

Two or more staves grouped together (with a systemic barline) form a **system**.

A **bracket** groups staves into systems or parts of systems.  
(See **Bracket**)

A **brace** groups staves into a **grand staff**.  
(See **Brace**)

**Some examples of systems:**

```
[  ]  [  ]  [  ]
```

The **first system** (or staff) of music is usually **indented** about 1/2 inch.

**Stems**

Stems are **thinner than staff lines and barlines**.

**STEM LENGTH**

The normal stem length is $3\frac{1}{2}$ spaces (one octave).

```
\-
```

**With leger lines**

When a note extends **beyond one leger line**, the stem must touch the middle staff line.

```
\-
```

**When parts share a staff**

Up-stem notes **above the middle line are shorter** than normal. Traditionally, their stem length is relative to surrounding notes, getting progressively shorter as the notes go higher. The shortest stem length is $2\frac{1}{2}$ spaces (interval of a 6th).

```
\-
```

For the computer, a setting should be chosen that works well for most situations.

Down-stem notes **below the middle line** follow the same guidelines as the above.
With the interval of a 2nd
The stem is always placed between the two notes of an interval of a 2nd, with the upper note always to the right, the lower note always to the left.

STEM DIRECTION
For notes on the middle line and above, the stem is down.

For notes below the middle line, the stem is up.

When sharing a staff
Notes have opposite stem direction when sharing a staff. (Stems in the “wrong direction” will have shorter stems, as previously mentioned.)

When notes share a stem
If the note above is farther from the middle line than the note below, the stem goes down.
If the note below is farther from the middle line, the stem goes up.

When the two notes are an equal distance from the middle line, the preferred direction is down.

If a pattern of stem direction is established, stem direction is sometimes maintained when the notes are an equal distance from the middle. (This practice is all but obsolete.)

The same rules apply to more than two notes sharing a stem. The distance of the outer notes from the middle line determines stem direction.

When the outer notes are an equal distance from the middle line and the majority of notes are above the middle line, the stem goes down.

When the outer notes are an equal distance from the middle line and the majority of notes are below the middle line, the stem goes up.

For beamed groups
Simple rules for stemming of single notes and chords apply to beamed groups when possible (for example, if all notes in a beamed grouping are on or above the middle line of the staff, stems are down).

(See Beams)
**Systems**

Two or more staves grouped together (with a systemic barline) form a system.

A **bracket** groups staves into systems or parts of systems.  
(See Bracket)

A **brace** groups staves into a **grand staff**.  
(See Brace and Grand staff)

Some examples of systems:

- **systemic barline**
- **grand staff**
- **brace**
- **bracket**

(See Barlines)

The **first system** of music is usually **indented** about 1/2 inch.

**Tablature**

Tablature is a system of notation that graphically represents the strings and frets of a stringed instrument (such as guitar).

The letters “TAB” are placed where a clef would normally be. The only function of these letters is to identify the staff as being tablature.

Each note is indicated by **placing the fret number on the appropriate string**.

![Tablature example](image)

Tablature does **NOT** indicate rhythmic values; therefore, a five-line staff using **standard notation** is placed above the tablature staff.

![Standard notation example](image)

A **systemic barline** connects the two staves together. Measure **barlines** are broken.

**Chord symbols** (when appropriate) are often added above the top staff.

**Picking or fingering techniques** notated on the top staff are repeated on the tablature staff.

![Chord symbols example](image)

Every note on the top staff must have a **corresponding finger number** on the tablature staff—**tied notes** are in parentheses.

![Tablature example](image)
Tablature may consist of **four lines** (for electric bass and mandolin) or **five lines** (five-string banjo).

The **notation** for guitar tablature outlined on the previous pages applies to all tablature, regardless of the number of strings.

**Electric bass**

```
1st string, open
T 2 0 2 0 2
A
B 3
4th string, 3rd fret
```

**Five-string banjo**

```
T 0
A 3
B 2
```

*a G7 chord*

**Tempo marks**

Tempo marks indicating the rate of speed may be followed by an expression mark and/or metronome mark.

The left edge of the tempo mark is **vertically aligned to the left edge of the time signature**.

*The type is bold Roman.*

**WITH EXPRESSION MARKS**

Tempo marks are often accompanied by an indication of **expression**; however, expression marks should **never replace** tempo marks.

**Presto con brio**

Slowly, with much emotion

**WITH METRONOME MARKS**

The tempo mark may be more precisely indicated with the addition of a metronome mark.

The metronome mark may be **specific**, a tempo range or **general**. The type is slightly smaller than that of the tempo and is usually enclosed in parentheses. The note is cue size or smaller.

- **Allegro con moto** ($J = 144$)
- **Allegro con moto** ($J = 132$–$144$)
- **Allegro con moto** ($J = \text{ca. } 144$)

**TEMPO VARIATIONS**

If the tempo is varied by the use of markings such as **ritardando**, **rallentando** or **accelerando**, the term **a tempo** is placed at the point where the tempo is reinstated. The type will be **bold italic**.

If the tempo changes, and then returns to the original tempo later in the piece, the term **Tempo I** is indicated **above the staff**. The type will be **bold Roman**.

**Tenuto**

See **Articulations**

**Ties**

A tie connects **two consecutive notes of the same pitch**, extending the duration of the first note to include the second. (The second note does not have its own attack.)

The shape of a tie is somewhat similar to a slur, but the **placement, positioning and use of ties and slurs are different**; the two should not be confused.

**BEGINNING AND ENDING**

Begin and end on the same horizontal level.
**Ties**

Begin to the right of the notehead.
End to the left of the next notehead.
The tie does not touch the noteheads.

**AVOID AUGMENTATION DOTS**

Ties should never collide with augmentation dots. Begin the tie to the right of an augmentation dot.

**PLACEMENT ON THE STAFF**

Avoid touching staff lines.
Place the center of the curve in a “space.”

Ends of ties may cross staff lines—it is better to cross even slightly, than to just touch a staff line.

Adjust curve for longer ties.
Raise or lower the center of the curve to the next space.

**DIRECTION ON THE STAFF**

Curve ties opposite of stem direction.
Stem down—curve above notehead.
Stem up—curve below notehead.

**Ties on whole notes** are treated as if the whole notes had stems.

For mixed stem direction, the tie is always placed above.

**SHARING THE SAME STAFF**

For two parts, place ties above for the upper part, below for the lower part.

For two sets of parts, place ties above for the upper two parts, below for the lower two parts.
**MULTIPLE TIED NOTES**

When more than two notes are tied, ties must be added from note to note.

Notes between highest and lowest—on the middle line and above, ties are above.

**WRAPPING FROM STAFF TO STAFF**

Align end of tie with end of staff.

Below the middle line, ties are below.

Continue tie in the lower staff immediately after the key signature (or clef).

For intervals of a 2nd, ties will be in opposite directions whenever possible.

Beginning and ending points always remain on the same horizontal level.

If some notes are not tied within the chords, the uppermost tied note has the tie above; the lowermost tied note has the tie below.

**DIRECTION OF TIES FOR CHORDS**

Highest note—tie is above.

ALIGNMENT OF TIE ENDS

Lowest note—tie is below.

Align ends of ties within a chord.

Tie ends for intervals of a 2nd should be adjusted if possible.
ADJUSTMENT OF TIES

Whenever possible, maintain the curve of a tie in uncommon situations. It should look like a tie, not a slur.

In this instance it is better to have the top tie curved up even though it is a part of the lower voice.

If a time signature interrupts a tie, break the tie to avoid colliding with the time signature.

BROKEN (DASHED) TIES

Ties using a broken line instead of a solid one are often used to accommodate lyrics for multiple verses.

When will you be there for No where have I seen

TIES IN MEASURED ARPEGGIOS

Although traditionally considered incorrect, ties are sometimes extended to the unbroken chord to avoid a cluttered look.

Traditional

Time signatures

Time signatures indicate the meter for a measure(s) or an entire piece.

Since meter is so closely connected with the proper use of ties, rests, beams and syncopated rhythms, the correct time signature must be chosen.

The upper number indicates the number of beats per measure.

The lower number indicates the note that gets one beat (2 = half note, 4 = quarter note, 8 = eighth note, 16 = sixteenth note, etc.).

All measures after a time signature will be in the same meter until a new time signature is indicated.

PLACEMENT

The upper number is always placed between the top line and the middle line of the staff.

The lower number is always placed between the middle line and the bottom line of the staff.

For a single-line staff, the line intersects the two numbers.

The time signature is indicated after the clef and key signature.
CHANGING TIME SIGNATURES

Time signatures may change from measure to measure, applying to all measures until the next time signature change. A change in time signature always appears AFTER a barline.

If the time signature changes at the beginning of a line, a courtesy time signature is added at the end of the previous staff, after the last barline. The new time signature appears after the clef (and key signature, if any) on the next staff.

The following illustrates the positioning of the clef, key signature and time signature if all three change simultaneously.

A tremolo may be on one note, or between two or more notes. It may be measured (a clear subdivision) or unmeasured (as fast as possible).

ON ONE NOTE

Measured tremolo

A short slanted line, ascending from left to right, through the stem of a note indicates that a note is to be subdivided.

Each line placed on the stem indicates the rhythmic value of the tremolo.

For instance, one line will indicate eighth notes, two lines—sixteenth notes.

In string music, a measured tremolo is sometimes indicated by placing divisi dots above the note, in addition to the slashes through the stem.

The divisi dots precisely indicate the divisions per note. The slashes through the stem indicate the rhythmic value.

COMPOSITE METER

(See Meter)

ALTERNATING METER

(See Meter)
Unmeasured tremolo

An unmeasured tremolo (on one note) is indicated by placing three lines through the stem and adding the abbreviation trem. above the note. (If placed on a beamed note, the beam counts as one of the lines.) Most often seen in notation for strings, percussion and fretted instruments.

\[
\text{trem.} \quad \text{trem.} \quad \text{trem.}
\]

Tremolo lines on whole notes are traditionally indicated above or below the note (positioned as if there were a stem, but centered on the notehead).

\[
\text{traditional style}
\]

Modern style breaks the whole note into two half notes and places the slanted lines through the stems as usual.

\[
\text{modern style}
\]

ON MORE THAN ONE NOTE

When a tremolo is indicated between two (or more) different pitches, the notes are connected with a beam, with incomplete beams placed between to indicate the rhythmic value.

\[
\text{Stems are lengthened to accommodate added beams.}
\]

With such a subdivision of the tremolo, each note equals the total rhythmic value of the tremolo.

\[
\begin{align*}
\text{unmeasured whole-note tremolo (traditional style)} \\
\text{modern style}
\end{align*}
\]

In the previous example, a complete measure of tremolo in \(\frac{4}{4}\) time consists of two sets of half notes beamed together.

INTERVAL / CHORD TREMOLO

For some instruments, a tremolo is possible between two, three or more notes.

\[
\text{Trill}
\]

The abbreviation \(\text{tr}\) indicates a trill.

The \(\text{tr}\) is always placed above the note, regardless of stem direction (unless two parts share a staff).

Each trilled note must have its own trill symbol.

A wavy line may be indicated after the \(\text{tr}\), especially if the trill is extended.

\[
\text{tr} \quad \text{tr} \quad \text{tr} \quad \text{tr} \quad \text{tr}
\]
If the trill extends over two or more notes, the wavy line continues to the end of the notehead of the last note affected by the trill.

If the wavy line extends over consecutive notes of the same pitch but without ties, the notes are to be clearly articulated.

When two parts share a staff, the trill for the lower part is placed below the note.

When the upper note of a trill is altered from the diatonic scale, a small accidental is used with the trill sign. The accidental is placed after the trill sign but before the wavy line (if used.)

The accidental may also appear above the trill sign.

A cue-size notehead is sometimes used.

Terminations can be indicated by cue-size or full-size notes.

When the upper note of a trill is altered from the diatonic scale, a small accidental is used with the trill sign. The accidental is placed after the trill sign but before the wavy line (if used.)

The accidental may also appear above the trill sign.

A cue-size notehead is sometimes used.

Rhythmic groupings of notes that are NOT metric groupings are known as tuplets.

Duplets, triplets, quadruplets, quintuplets, sextuplets and septuplets are all examples of tuplets.

TUPLET NUMERALS

The numeral is larger than a finger number and is distinctly italic, preferably bold italic. (See Fingerings [for keyboard])

For beamed tuplets, the numeral is preferred on the beam side, centered.

Do not use a tuplet slur with the numeral. This is an obsolete practice and causes confusion between normal slurs and tuplet slurs.

Place the tuplet numeral outside the staff whenever possible.

If placed within the staff, the numeral must be clearly positioned, avoiding staff lines as much as possible.
The numeral remains placed with the beam, whatever the stem direction.

When parts share a staff, the numeral is placed normally (beam/stem side).

After a pattern of tuplets has been established, the numeral may be omitted. Simile may also be used for clarity.

TUPLET BRACKETS

If the tuplet is not beamed, a bracket is added and the numeral is centered within the bracket.

The bracket always begins flush left with the notehead and ends flush right with the notehead, whether on the notehead or stem side.

The bracket is broken to accommodate the number; the ends are always vertical.

If the tuplet numeral is moved to the notehead side of a beamed tuplet (for example, to avoid fingerings), add a bracket for clarity.

The bracket is placed at the same angle as the beam.

When placing a bracket with unbeamed notes, the bracket angle can vary.

BRACKETS AND UNEQUAL VALUES

For unequal rhythmic values within the tuplet group, the bracket must include all notes of the group.

The numeral remains centered within the bracket.

The tuplet unit is clearly seen if the bracket extends to include the entire allotted space for the tuplet (as in the first tuplet below).

The bracket does not extend to include the flag (as shown in the second tuplet).
Tuplets

WITH RESTS

The **bracket extends** to include rests.

Although the bracket is preferred, an option is to **extend the beam** to include the rest within the tuplet.

WITH FINGERINGS

It is advised to move the tuplet figure to avoid confusion with finger numbers.

WITH ARTICULATIONS

If the bracket must be placed on the same side as articulations, the bracket is **placed outside articulations**.

---

**DETERMINING NOTE VALUE**

A tuplet may occupy a beat, a pulse, a portion of a beat or pulse, or an entire measure.

To determine the rhythmic value of a tuplet that occupies **one beat**, subdivide the beat metrically as many times as you can without exceeding the number of notes in the tuplet. The note value of the tuplet will be equal to the note value of that metric subdivision.

In the example below, if each beat were subdivided further, it would have more notes than the tuplet; therefore the tuplet notes are sixteenth notes.

Use the same principle to determine the note value of tuplets that occupy an **entire measure** (or another unit of a measure).
Duplets are the only exception to the previous rule deciding tuplet rhythmic value.

Duplets are equal in rhythmic value to the beat (not to be confused with pulse).

Duplets only occur in compound meter.

HORIZONTAL SPACING

A tuplet is spaced mathematically, as proper spacing dictates—not aligned with the metric rhythm.