LilyPond

The music typesetter

Music Glossary

The LilyPond development team

This glossary provides definitions and translations of musical terms used in the documentation manuals for LilyPond version 2.27.5.

For more information about how this manual fits with the other documentation, or to read this manual in other formats, see Section “Manuals” in *General Information*.

If you are missing any manuals, the complete documentation can be found at `https://lilypond.org/`.

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For LilyPond version 2.27.5

1 Musical terms A-Z

Languages in this order.

- UK - British English (where it differs from American English)
- ES - Spanish
- I - Italian
- F - French
- D - German
- NL - Dutch
- DK - Danish
- S - Swedish
- FI - Finnish

1.1 A

- ES: la
- I: la
- F: la
- D: A, a
- NL: a
- DK: a
- S: a
- FI: A, a

See also

Chapter 3 [Pitch names], page 86.

1.2 a due

ES: a dos, I: a due, F: à deux, D: zu zweit, NL: ?, DK: a 2, S: ?, FI: kahdelle.

Abbreviated *a2* or *a 2*. In orchestral scores, *a due* indicates that:

1. A single part notated on a single staff that normally carries parts for two players (e.g., first and second oboes) is to be played by both players.
2. Or conversely, that two pitches or parts notated on a staff that normally carries a single part (e.g., first violin) are to be played by different players, or groups of players ('desks').

See also

No cross-references.

1.3 accelerando

ES: accelerando, I: accelerando, F: accelerando, en accélérant, D: accelerando, schneller werden, NL: accelerando, DK: accelerando, S: accelerando, FI: accelerando, kiihdyttäen.

[Italian: 'speed up, accelerate']

An increase in the tempo, abbreviated *accel.*

See also

No cross-references.

1.4 accent

ES: acento, I: accento, F: accent, D: Akzent, NL: accent, DK: accent, S: accent, FI: aksentti, korostus.

The stress of one tone over others.

See also

No cross-references.

1.5 accessory

See also

Section 1.229 [ornament], page 57.

1.6 acciaccatura

ES: mordente de una nota, I: acciaccatura, F: acciaccature, appoggiature brève, D: Zusammenschlag, NL: samenslag, DK: kort forslag, S: ?, FI: ?.

A grace note which takes its time from the rest or note preceding the principal note to which it is attached. The acciaccatura is drawn as a small eighth note (quaver) with a line drawn through the flag and stem.

See also

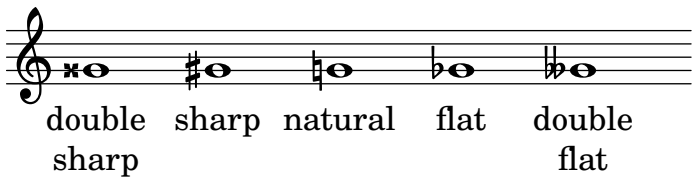
Section 1.20 [appoggiatura], page 6, Section 1.147 [grace notes], page 35, Section 1.211 [mordent], page 53, Section 1.229 [ornament], page 57.

1.7 accidental

ES: alteración accidental, I: alterazione, accidente, F: altération accidentelle, D: Versetzungszeichen, Vorzeichen, Akzidenz, NL: toevallig (verplaatsings)teken, DK: løst fortegn, S: tillfälligt förtecken, FI: tilapäinen etumerkki.

An accidental alters a note by:

- Raising its pitch:
  - By two semitones—*double sharp*
  - By one semitone—*sharp*
- Lowering its pitch:
  - By one semitone—*flat*
  - By two semitones—*double flat*
- Or canceling the effects of the key signature or previous accidentals.



See also

Section 1.13 [alteration], page 4, Section 1.271 [semitone], page 67, Section 1.343 [whole tone], page 82.

1.8 adagio

ES: adagio, lento, I: adagio, F: adagio, lent, D: Adagio, Langsam, NL: adagio, DK: adagio, S: adagio, FI: adagio, hitaasti.

[Italian: 'comfortable, easy']

- Slow tempo, slower – especially in even meter – than *andante* and faster than *largo*.
- A movement in slow tempo, especially the second (slow) movement of sonatas, symphonies, etc.

See also

Section 1.19 [andante], page 5, Section 1.172 [largo], page 43, Section 1.288 [sonata], page 71.

1.9 al fine

[Italian: 'to the end']

In an instruction such as *D.C. al Fine*, indicates that the performance should continue to the point marked *Fine*.

See also
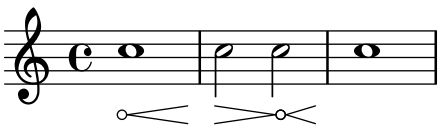
Section 1.80 [da capo], page 20, Section 1.82 [dal segno], page 21, Section 1.131 [fine], page 32.

1.10 al niente
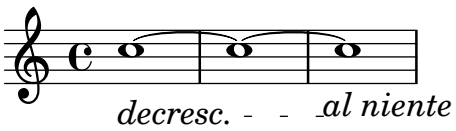
ES: al niente, I: al niente, F: al niente, en mourant, D: al niente, ins Nichts (verschwinden), NL: ?, DK: al niente, S: ?, FI: häviten olemattomiin.

[Italian: 'to nothing'] Used with *decrescendo* to indicate that the sound should fade away to nothing.

Al niente is indicated by circling the tip of the hairpin:



or with the actual phrase *al niente*:



Since one does not crescendo *to* nothing, it is not correct to use *al niente* with *crescendo*. Instead, one should use *dal niente* (**from** *nothing*).

See also

Section 1.75 [crescendo], page 19, Section 1.81 [dal niente], page 20, Section 1.83 [decrescendo], page 21, Section 1.152 [hairpin], page 36.

1.11 alla breve

ES: alla breve, I: alla breve, F: alla breve, à la brève, D: Allabreve, alla breve NL: ?, DK: alla breve, S: ?, FI: ?.

[Italian: 'on the breve'] Twice as fast as the notation indicates.

Also called *in cut time*. The name derives from mensural notation, where the *tactus* (or beat) is counted on the semibreve (the modern whole note). Counting 'on the breve' shifts the tactus to the next longest note value, which (in modern usage) effectively halves all note values.

In mensural notation, breves and semibreves can have a ternary relationship, in which case *alla breve* means thrice (not twice) as fast. In practice, this complication may not have mattered, since Gaffurius's system of multiplex proportions makes it easy to explicitly state which proportion is needed.

See also

Section 1.44 [breve], page 11, Section 1.158 [hemiola], page 38, Section 1.196 [mensural notation], page 47, Section 1.223 [note value], page 55, Section 1.250 [proportion], page 61, Section 1.341 [whole note], page 82.

1.12 allegro

ES: allegro, rápido, I: allegro, F: allegro, gaiement, D: Allegro, Schnell, Fröhlich, Lustig, NL: allegro, DK: allegro, S: allegro, FI: allegro, nopeasti.

[Italian: 'cheerful'] Quick tempo. Also used as a title for pieces in a quick tempo, especially the first and last movements of a sonata.

See also

Section 1.288 [sonata], page 71.

1.13 alteration

ES: alteración, I: alterazione, F: altération, D: Alteration, NL: verhoging of verlaging, DK: Forandring, S: Förändring, FI: muunnettu.

An alteration is the modification, raising or lowering, of a note's pitch. It is established by an accidental.

See also

Section 1.7 [accidental], page 2.

1.14 alto

ES: alto, I: contralto, F: alto, D: Alt, NL: alt, DK: alt, S: alt, FI: altto, matala naisääni.

A female voice of low range (*contralto*). Originally the alto was a high male voice (hence the name), which by castration or the use of falsetto reached the height of the natural female voice. This type of voice is also known as countertenor.

See also

Section 1.74 [countertenor], page 19.

1.15 alto clef

ES: clave de do en tercera, I: chiave di contralto, F: clef d'ut troisième ligne, D: Altschlüssel, Bratschenschlüssel, NL: alt sleutel, DK: altnøgle, S: altklav, FI: alttoavain.

C clef setting middle C on the middle line of the staff.

See also

Section 1.46 [C clef], page 12.

1.16 ambitus

ES: ámbito, I: ambitus, F: ambitus, tessiture, D: Ambitus, NL: ambitus, DK: ambitus, toneomfang S: ambitus, FI: ambitus, ääniala, soitinala.

[Latin: past participle of *ambire*, 'to go around'; plural: ambitus] Denotes a range of pitches for a given voice in a part of music. It may also denote the pitch range that a musical instrument is capable of playing. Sometimes anglicized to *ambit* (pl. *ambits*).
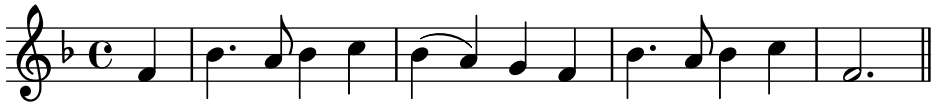
See also

No cross-references.

1.17 anacrusis

ES: anacrusa, I: anacrusi, F: anacrouse, levée, D: Auftakt, NL: opmaat, DK: optakt, S: upptakt, FI: kohotahti.

An anacrusis (also known as pickup or upbeat) is an incomplete measure of music before a section of music. It also refers to the initial note(s) of a melody occurring in that incomplete measure.



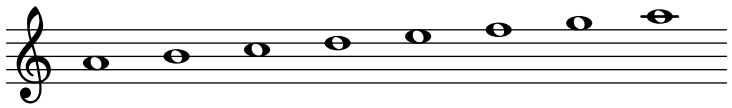
See also

Section 1.190 [measure], page 46, Section 1.199 [meter], page 49.

1.18 ancient minor scale

ES: escala menor natural, I: scala minore naturale, F: forme du mode mineur ancien, troisème mode, mode hellénique, D: reines Moll, natürliches Moll, NL: authentieke mineurtoonladder, DK: ren mol, S: ren mollskala, FI: luonnollinen molliasteikko.

Also called 'natural minor scale'.



See also

Section 1.85 [diatonic scale], page 21.

1.19 andante

ES: andante, I: andante, F: andante, allant, D: Andante, Gehend, NL: andante, DK: andante, S: andante, FI: andante, käyden.

[Italian: present participle of *andare*, 'to walk']

Walking tempo/character.

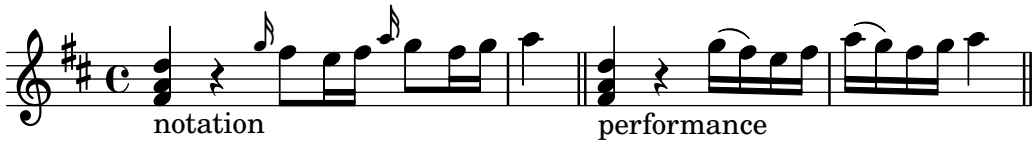
See also

No cross-references.
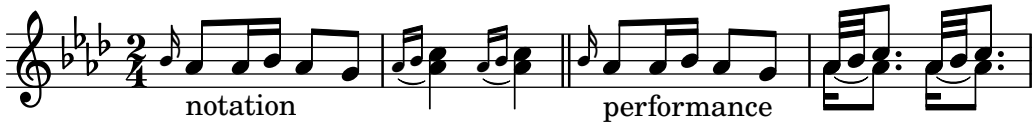
1.20 appoggiatura

ES: apoyatura, I: appoggiatura, F: appoggiature, (port de voix), D: Vorschlag, Vorhalt NL: (korte) voorslag, DK: forslag, S: förslag, FI: appoggiatura, etuhele.

Ornamental note, usually a second, that is melodically connected with the main note following it. In music before the 19th century appoggiature were usually performed on the beat, after that mostly before the beat. While the short appoggiatura is performed as a short note regardless of the duration of the main note the duration of the long appoggiatura is proportional to that of the main note.



An appoggiatura may have more notes preceding the main note.



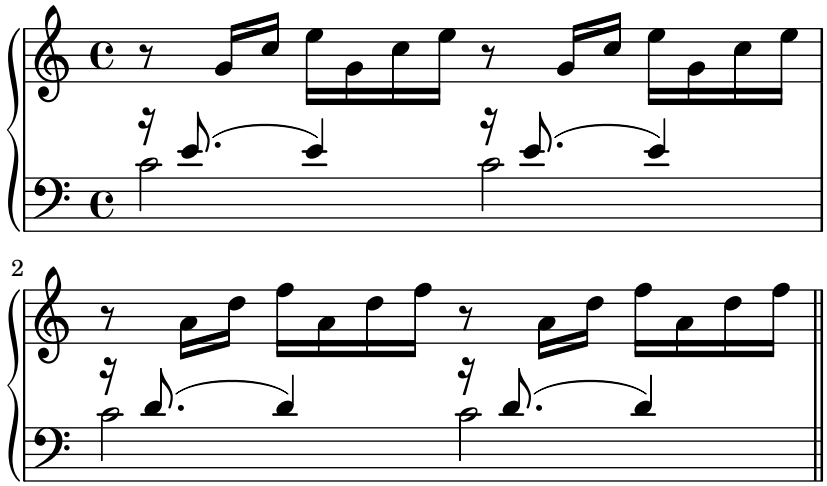
See also

No cross-references.

1.21 arpeggio

ES: arpegio, I: arpeggio, F: arpège, D: Arpeggio, Akkordbrechungen, gebrochener Akkord, NL: gebroken akoord, DK: arpeggio, akkordbrydning, S: arpeggio, FI: arpeggio, murtosointu.

[Italian: 'harp-like, played like a harp']



See also

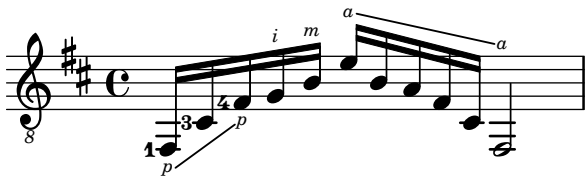
No cross-references.

1.22 arrastre

ES: arrastre, I: ?, F: ?, D: ?, NL: ?, DK: ?, S: ?, FI: ?.

A playing technique for flamenco guitar where the the right hand ring finger drags across the strings from highest to lowest, creating a rapid arpeggio.

Frequently used in the Tarantas flamenco style.



See also

Section 1.21 [arpeggio], page 6.

1.23 articulation

ES: articulación, I: articolazione, F: articulation, D: Artikulation, NL: articulatie, DK: artikulation, S: ?, FI: artikulaatio, ilmaisu.

Articulation refers to notation which indicates how a note or notes should be played. Slurs, accents, staccato, and legato are all examples of articulation.

See also

No cross-references.

1.24 ascending interval

ES: intervalo ascendente, I: intervallo ascendente, F: intervalle ascendant, D: aufsteigendes Intervall, NL: stijgend interval, DK: stigende interval, S: stigande intervall, FI: nouseva intervalli.

A distance between a starting lower note and a higher ending note.

See also

No cross-references.

1.25 augmentation

ES: aumentación, I: aumentazione, F: augmentation, D: Augmentation, NL: Augmentatio, DK: Forøgelse, S: Förstoring, FI: aika-arvojen pidentäminen.

This is a placeholder for augmentation (wrt mensural notation).

See also

Section 1.89 [diminution], page 23, Section 1.196 [mensural notation], page 47.

1.26 augmented interval

ES: intervalo aumentado, I: intervallo aumentato, F: intervalle augmenté, D: übermäßiges Intervall, NL: overmatig interval, DK: forstørret interval, S: överstigande intervall, FI: ylinouseva intervalli.

See also

Section 1.164 [interval], page 40.

1.27 autograph

ES: manuscrito, I: autografo, F: manuscrit, autographe, D: Autograph, Handschrift, NL: manuscript, DK: håndskrift, autograf, S: handskrift, FI: käsinkirjoitettu nuotti.

- A manuscript written in the composer's own hand.

- Music prepared for photoreproduction by freehand drawing, with the aid of a straightedge ruler and T-square only, which attempts to emulate engraving. This required more skill than did engraving.

See also

No cross-references.

1.28 B

- ES: si
- I: si
- F: si
- D: H, h
- NL: b
- DK: h
- S: h
- FI: H, h

See also

Section 1.151 [H], page 36, Chapter 3 [Pitch names], page 86.

1.29 backfall

See also

Section 1.20 [appoggiatura], page 6.

1.30 bar

See also

Section 1.190 [measure], page 46.

1.31 bar line

ES: barra, línea divisoria, I: stanghetta, barra (di divisione), F: barre (de mesure), D: Taktstrich, NL: maatstreep, DK: taktstreg, S: taktstreck, FI: tahtiviiva.

A vertical line through the staff (or through multiple staves) that separates measures. Used very infrequently during the Renaissance (mostly in secular music, or in sacred music to indicate congruences between parts in otherwise-unmetered music).

See also

Section 1.190 [measure], page 46.

1.32 baritone

ES: barítono, I: baritono, F: bariton, D: Bariton, NL: bariton, DK: baryton, S: baryton, FI: baritoni, keskikorkuinen miesääni.

The male voice intermediate in pitch between the bass and the tenor.

See also

Section 1.34 [bass], page 9, Section 1.311 [tenor], page 76.

1.33 baritone clef

ES: clave de fa en tercera, I: chiave di baritono, F: clef d'ut cinquième ligne, clef de fa troisième, D: Baritonschlüssel, NL: baritonsleutel, DK: barytonnøgle, S: barytonklav, FI: baritoniavain.

C or F clef setting middle C on the upper staff line.

See also

Section 1.46 [C clef], page 12, Section 1.125 [F clef], page 31.

1.34 bass

ES: bajo, I: basso, F: basse, D: Bass, NL: bas, DK: bas, S: bas, FI: basso, matala miesääni.

- The lowest male voice.
- Sometimes, especially in jazz music, used as an abbreviation for double bass.

See also

Section 1.297 [strings], page 73.

1.35 bass clef

ES: clave de fa en cuarta, I: chiave di basso, F: clef de fa quatrième ligne, D: Bassschlüssel, NL: bassleutel, DK: basnøgle, S: basklav, FI: bassoavain.

A clef setting with middle C on the first top ledger line.
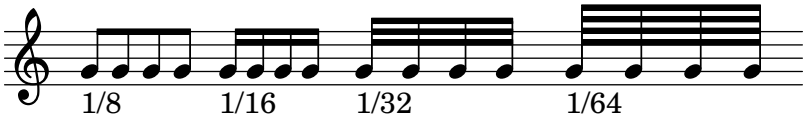
See also

Section 1.125 [F clef], page 31, Section 1.159 [high bass clef], page 39.

1.36 beam

ES: barra (de corcheas), I: coda, F: ligature, barre (de croches), D: Balken, NL: waardestreep, DK: bjælke, S: balk, FI: palkki.

Line connecting a series of notes (shorter than a quarter note). The number of beams determines the note value of the connected notes.



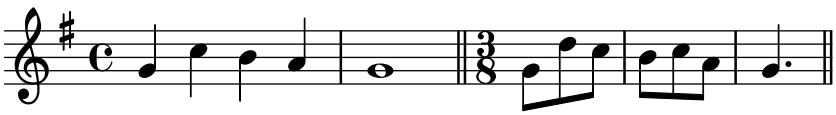
See also

Section 1.127 [feathered beam], page 31.

1.37 beat

ES: tiempo, parte (de compás) I: tempi, F: temps, battue D: Takt, Taktschlag, Schlag, Zeit (im Takt), NL: tel, DK: (takt)slag, S: taktslag, FI: aika-arvo.

Note value used for counting, most often half-, fourth-, and eighth notes. The base counting value and the number of them in each measure is indicated at the start of the music by the *time signature*.



See also

Section 1.320 [time signature], page 77.

1.38 beat repeat

See also

Section 1.234 [percent repeat], page 58.

1.39 bind

See also
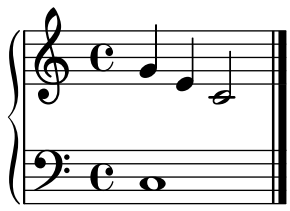
Section 1.318 [tie], page 77.

1.40 brace

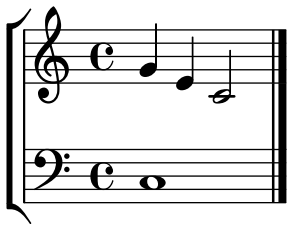
ES: llave, corchete, I: graffa, F: accolade, D: (geschwungene) Klammer, Akkolade, NL: accolade, teksthaak, DK: klamme, S: klammer, FI: yhdistävä sulkumerkki.

Symbol at the start of a system connecting staves.

Curly braces are used for connecting piano staves, and sometimes for connecting the staves of like instruments in an orchestral score when written on different staves (e.g., first and second flutes):



Angular brackets for connecting parts in an orchestral or choral score:



See also

No cross-references.

1.41 bracket

ES: corchete, I: parentesi quadra, F: crochet, D: eckige Klammer, NL: ?, DK: kantet parentes, S: ?, FI: sulkumerkki.

See also

Section 1.40 [brace], page 10.

1.42 brass

ES: metales, I: ottoni, D: Blechbläser, NL: koper (blazers), F: cuivres, DK: messingblæsere, S: brassinstrument, mässingsinstrument, FI: vaskisoitin.

A family of blown musical instruments made of brass, all using a cup formed mouth piece. The brass instruments commonly used in a symphony orchestra are trumpet, trombone, French horn, and tuba. In marching bands, sousaphones and contrabass bugles are common.

See also

No cross-references.

1.43 breath mark

ES: respiración, I: respiro, F: respiration, D: Atemzeichen, Trennungszeichen, NL: repercussieteken, DK: vejrtrækningstegn, S: andningstecken, FI: hengitysmerkki.

Indication of where to breathe in vocal and wind instrument parts.

See also
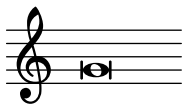
Section 1.49 [caesura], page 12.

1.44 breve

- US: breve, double-whole note
- ES: cuadrada, breve
- I: breve
- F: brève
- D: Brevis
- NL: brevis
- DK: brevis
- S: brevis
- FI: brevis, kaksoiskokonuotti

Note value: twice the length of a *whole note* (*semibreve*).

Mainly used in music from before 1650. In mensural notation, it was a note of fairly short duration—hence the name, which is Latin for 'short' or 'of short duration'.



See also

Section 1.196 [mensural notation], page 47, Section 1.223 [note value], page 55, Section 1.270 [semibreve], page 67.

1.45 C

- ES: do
- I: do
- F: ut, do
- D: C, c
- NL: c

- DK: c
- S: c
- FI: C, c
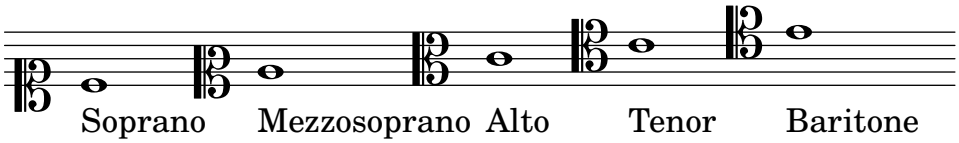
See also

Chapter 3 [Pitch names], page 86.

1.46 C clef

ES: clave de do, I: chiave di do, F: clef d'ut, D: C-Schlüssel, NL: C-sleutel, DK: c-nøgle, S: c-klav, FI: C-avain.

Clef symbol indicating the position of the middle C. Used on all note lines.



See also

No cross-references.

1.47 cadence

ES: cadencia, I: cadenza, F: cadence, D: Kadenz, NL: cadens, DK: kadence, S: kadens, FI: kadenssi, lopuke.

See also

Section 1.155 [harmonic cadence], page 37, Section 1.143 [functional harmony], page 34.

1.48 cadenza

ES: cadenza, I: cadenza, F: cadence, D: Kadenz, NL: cadens, DK: kadence, S: kadens, FI: kadenssi, lopuke.

An extended, improvisatory style section inserted near the end of movement. The purpose of a cadenza is to give singers or players a chance to exhibit their technical skill and – not last – their ability to improvise. Since the middle of the 19th century, however, most cadenzas have been written down by the composer.

See also

No cross-references.

1.49 caesura

ES: cesura, I: cesura, F: césure, D: Zäsur, NL: ?, DK: cæsur, S: ?, FI: välimerkki.

[Latin: from the supine of *caedere* 'to cut down']

The break between two musical phrases, sometimes (but not always) marked by a rest or a breath mark.

See also

Section 1.43 [breath mark], page 11.

1.50 canon

ES: canon, I: canone, F: canon, D: Kanon, NL: canon, DK: kanon, S: kanon, FI: kaanon, tarkka jäljittely.

See also

Section 1.73 [counterpoint], page 18.

1.51 cent

ES: cent, I: cent, F: cent, D: Cent, NL: cent, DK: cent, S: cent, FI: sentti, puolisävelaskeleen sadasosa tasavireisessä viritysjärjestelmässä.

Logarithmic unit of measuring pitch differences. 1 cent is 1/1200 of an octave (1/100 of an equally tempered semitone).

See also

Section 1.121 [equal temperament], page 29, Section 1.271 [semitone], page 67.

1.52 central C

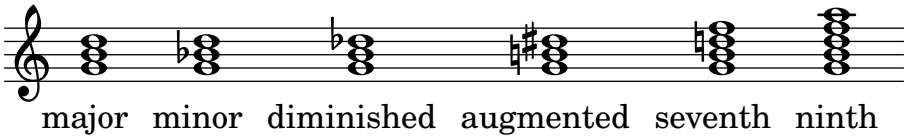
See also

Section 1.205 [middle C], page 52.

1.53 chord

ES: acorde, I: accordo, F: accord, D: Akkord, NL: akkoord, DK: akkord, S: ackord, FI: sointu.

Two or more tones sounding simultaneously. In traditional European music the base chord is a *triad* consisting of two thirds. *Major* (major + minor third) as well as *minor* (minor + major third) chords may be extended with more thirds. Four-tone *seventh chords* and five-tone *ninth* major chords are most often used as dominants (functional harmony). Chords having no third above the lower notes to define their mood are a special case called 'open chords'. The lack of the middle third means their quality is ambivalent – neither major nor minor.



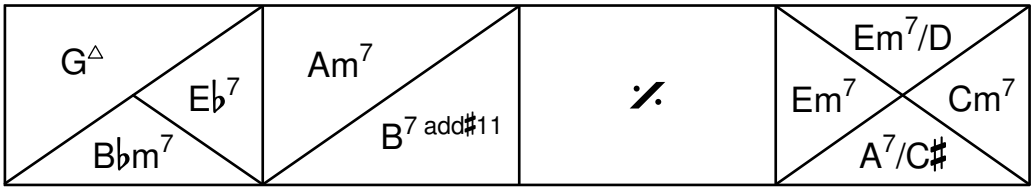
See also

Section 1.143 [functional harmony], page 34, Section 1.164 [interval], page 40, Section 1.165 [inversion], page 41, Section 1.253 [quality], page 62, Section 1.314 [third], page 76.

1.54 chord grid

ES: ?, I: ?, F: grille d'accords, D: ?, NL: ?, DK: ?, S: ?, FI: ?.

Chord grids notate chords in a visual way by placing them in squares. They are used for jazz music, mainly in France.



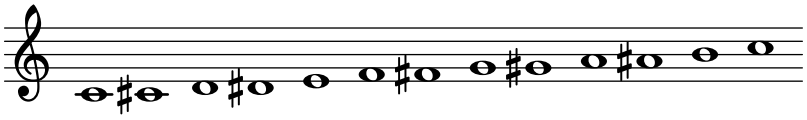
See also

Section 1.53 [chord], page 13.

1.55 chromatic scale

ES: escala cromática, I: scala cromatica, F: gamme chromatique, D: chromatische Tonleiter, NL: chromatische toonladder, DK: kromatisk skala, S: kromatisk skala, FI: kromaattinen asteikko.

A scale consisting of all 12 semitones.



See also

Section 1.271 [semitone], page 67.

1.56 chromaticism

ES: cromatismo, I: cromatismo, F: chromatisme, D: Chromatik, NL: chromatiek, DK: kromatik, S: kromatik, FI: kromatiikka.

Using tones extraneous to a diatonic scale (minor, major).

See also

Section 1.85 [diatonic scale], page 21.

1.57 church mode

ES: modo eclesiástico, I: modo ecclesiastico, F: mode ecclésiastique, mode d'église, D: Kirchentonart, NL: kerktoonladder, DK: kirketoneart, S: kyrkotonart, FI: moodi, kirkkosävellaji.

See also

Section 1.85 [diatonic scale], page 21.

1.58 clef

ES: clave, I: chiave, F: clé, clef, D: Schlüssel, Notenschlüssel, NL: sleutel, DK: nøgle, S: klav, FI: avain, nuottiavain.

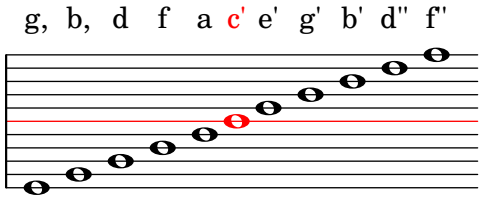
The clef indicates which lines of the staff correspond to which pitches. The three clef symbols in common use are:

The Treble or G clef: 

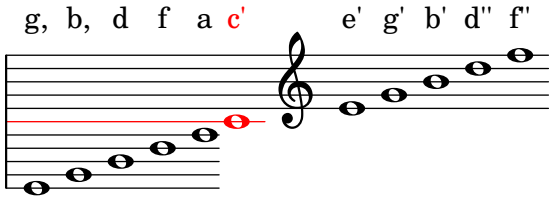
The Bass or F clef:

The Alto or C clef: 

Imagine a large staff of 11 lines centered on middle C, sometimes called a 'grand staff', with the bottom line representing low G and the top line high F:

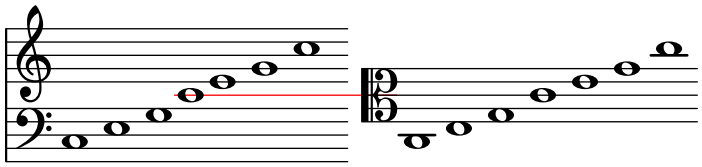


Staves of five lines are usually used, and the clef superimposed on them indicates which five lines have been selected from this *grand staff*. For example, the treble or G clef indicates that the top five lines have been selected:



The 'curl' of the G clef is centered on the line that represents the pitch G.

In the same way, the bass or F clef indicates that the bottom five lines have been selected from the *grand staff*, and the alto or C clef indicates the middle five lines have been selected. This relationship is shown below, where the notes show an arpeggio on a C major chord.



See also

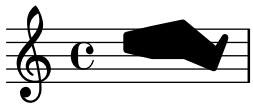
Section 1.46 [C clef], page 12, Section 1.125 [F clef], page 31, Section 1.145 [G clef], page 35.

1.59 cluster

ES: racimo, I: cluster, F: cluster, D: Cluster, NL: ?, DK: cluster, S: ?, FI: klusteri, cluster.

A *cluster* is a range of simultaneously sounding pitches that may change over time. The set of available pitches to apply usually depends on the acoustic source. Thus, in piano music, a cluster typically consists of a continuous range of the semitones as provided by the piano's fixed set of a chromatic scale. In choral music, each singer of the choir typically may sing an arbitrary pitch within the cluster's range that is not bound to any diatonic, chromatic or other scale. In electronic music, a cluster (theoretically) may even cover a continuous range of pitches, thus resulting in colored noise, such as pink noise.

Clusters can be denoted in the context of ordinary staff notation by engraving simple geometrical shapes that replace ordinary notation of notes. Ordinary notes as musical events specify starting time and duration of pitches; however, the duration of a note is expressed by the shape of the note head rather than by the horizontal graphical extent of the note symbol. In contrast, the shape of a cluster geometrically describes the development of a range of pitches (vertical extent) over time (horizontal extent). Still, the geometrical shape of a cluster covers the area in which any single pitch contained in the cluster would be notated as an ordinary note.



See also

No cross-references.

1.60 comma

ES: coma, comma, I: comma, F: comma, D: Komma, NL: komma, DK: komma, S: komma, FI: komma, korvinkuultava ero äänenkorkeudessa.

Difference in pitch between a note derived from pure tuning and the same note derived from some other tuning method.

See also

Section 1.86 [didymic comma], page 23, Section 1.251 [Pythagorean comma], page 62, Section 1.307 [syntonic comma], page 75, Section 1.309 [temperament], page 75.

1.61 common meter

Another name for Section 1.63 [common time], page 16.

See also

Section 1.63 [common time], page 16, Section 1.199 [meter], page 49.

1.62 Common Practice Period

ES: ?, I: Periodo di pratica comune, F: musique classique moderne, D: Kunstmusik, NL: ?, DK: kunstmusik, S: ?, FI: ?.

This is a stub for Common Practice Period (CPP).

See also

Section "Note names in other languages" in *Notation Reference*.

1.63 common time

ES: compasillo, I: tempo semplice, F: mesure à 4/4, D: 4/4-Takt, NL: ?, DK: 4/4-takt, S: ?, FI: C-merkintä.

4/4 time. The symbol, which resembles a capital letter C, comes from mensural notation.

See also

Section 1.196 [mensural notation], page 47, Section 1.199 [meter], page 49.

1.64 complement

ES: intervalo invertido, I: rivolto, F: intervalle complémentaire, D: Komplementärintervall, NL: complementair interval, DK: komplementærinterval, S: komplementärintervall (?), FI: täydentävä intervalli.

See also

Section 1.166 [inverted interval], page 42.

1.65 compound interval

ES: intervalo compuesto, I: intervallo composto, F: intervalle composé, D: weites Intervall, NL: samengesteld interval, DK: sammensat interval, S: sammansatt intervall, FI: oktaavia laajempi intervalli.

Intervals larger than an octave.

See also

Section 1.164 [interval], page 40.

1.66 compound meter

ES: compás compuesto, compás de subdivisión ternaria, I: tempo composto, F: mesure composée, D: Taktart mit dreizeitigen Taktteilen, NL: ?, DK: sammensat taktart, S: ?, FI: kolmijakoinen tahtilaji.

A meter that includes a triplet subdivision within the beat, such as 6/8, 9/8, 12/8.

See also
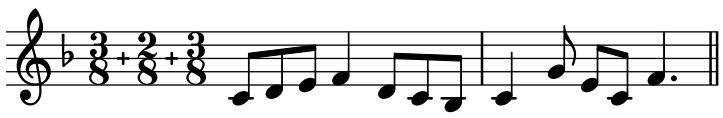
Section 1.199 [meter], page 49, Section 1.279 [simple meter], page 69.

1.67 compound time

ES: compás compuesto, compás de amalgama (def. 2), I: tempo misto, F: temps composé, D: zusammengesetzte Taktart, NL: ?, DK: sammensat takt, S: ?, FI: yhdistetty tahtilajiosoitus.

1. A meter that includes a triplet subdivision within the beat: see Section 1.66 [compound meter], page 17.
2. A time signature that additively combines two or more unequal meters, e.g., '3/8 + 2/8' instead of '5/8'. Sometimes called additive time signatures.

```
\relative c' {
  \key f \major
  \time #'((3 . 8) (2 . 8) (3 . 8))
  c8 d e f4 d8 c bes
  c4 g'8 e c f4.
  \bar "||"
}
```



See also

Section 1.66 [compound meter], page 17, Section 1.199 [meter], page 49, Section 1.245 [polymetric time signature], page 60.

1.68 concert pitch

ES: en Do, tono de concierto, I: intonazione reale, F: tonalité de concert, en ut, D: Kammerton, in C, NL: ?, DK: ikke-transponerende, S: ?, FI: konserttikorkeus.

The pitch at which the piano and other nontransposing instruments play: such instruments are said to be 'in C'. The following list includes some (but not all) instruments that play in concert pitch.

Woodwinds	**Strings**
flute	violin
oboe	viola
bassoon	violoncello

Instruments that play 'in C' but in a different octave than what is written are, technically speaking, *transposing instruments*:

- piccolo (plays an octave higher than written)

- celesta (plays an octave higher than written)
- classical guitar (plays an octave lower than written)
- double bass (plays an octave lower than written)
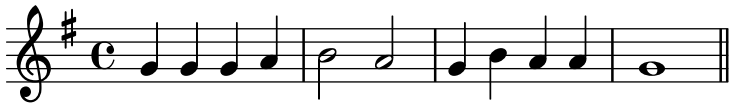
See also

Section 1.323 [transposing instrument], page 78.

1.69 conjunct movement

ES: movimiento conjunto, I: moto congiunto, F: mouvement conjoint, D: schrittweise, stufenweise Bewegung, NL: stapsgewijze, trapsgewijze beweging, DK: trinvis bevægelse, S: stegvis rörelse, FI: asteittainen liike.

Progressing melodically by intervals of a second, as contrasted with *disjunct movement*.



See also

Section 1.91 [disjunct movement], page 24.

1.70 consonance

ES: consonancia, I: consonanza, F: consonance, consonnance, D: Konsonanz, NL: consonant, DK: konsonans, S: konsonans, FI: konsonanssi, sopusointi.

See also

Section 1.157 [harmony], page 38.

1.71 contralto

ES: contralto, I: contralto, F: contralto, D: Alt, NL: contralto, DK: alt, S: alt, FI: kontra-altto.

See also

Section 1.14 [alto], page 4.

1.72 copying music

A music copyist did fast freehand scores and parts on preprinted staff lines for performance. Some of their conventions (e.g., the placement of note heads on stems) varied slightly from those of engravers. Some of their working methods were superior and could well be adopted by music typesetters.

See also
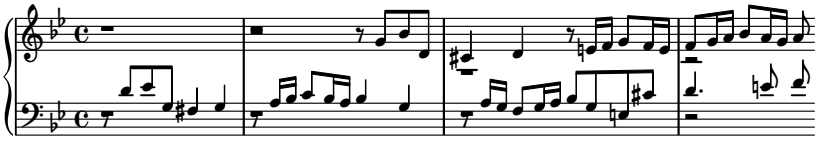
No cross-references.

1.73 counterpoint

ES: contrapunto, I: contrappunto, F: contrepoint, D: Kontrapunkt, NL: contrapunt, DK: kontrapunkt, S: kontrapunkt, FI: kontrapunkti, ääni ääntä vastaan.

From Latin *punctus contra punctum*, note against note. The combination into a single musical fabric of lines or parts which have distinct melodic significance. A frequently used polyphonic

technique is imitation, in its strictest form found in the canon needing only one part to be written down while the other parts are performed with a given displacement. Imitation is also the contrapuntal technique used in the *fugue* which, since the music of the baroque era, has been one of the most popular polyphonic composition methods.



See also

No cross-references.

1.74 countertenor

ES: contratenor, I: controtenore, F: contre-tenor, D: Countertenor, Kontratenor, NL: contratenor, DK: kontratenor, S: kontratenor, counter tenor, FI: kontratenori.
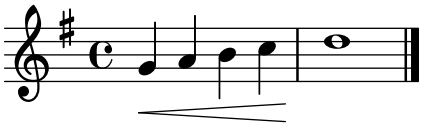
See also

Section 1.71 [contralto], page 18.

1.75 crescendo

ES: crescendo, I: crescendo, F: crescendo, D: Crescendo, lauter werden, NL: crescendo, DK: crescendo, S: crescendo, FI: cresendo, voimistuen.

Increasing volume. Indicated by a rightwards opening horizontal wedge (hairpin) or the abbreviation *cresc.*



See also

Section 1.83 [decrescendo], page 21, Section 1.152 [hairpin], page 36.

1.76 cue-notes

ES: notas guía, I: notine, F: petites notes précédant l'entrée d'un instrument, réplique, « à défaut », D: Stichnoten, NL: stichnoten, DK: stiknoder, S: inprickningar, FI: vihjenuotit.

Notes belonging to one part printed in another to hint when to start playing. Usually printed in a smaller type.

See also

Compare: Section 1.230 [ossia], page 58.

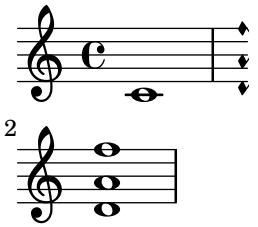
1.77 custos

ES: custos, I: custos, guida, F: guidon, D: Notenzeiger, Custos, NL: ?, DK: custos, S: ?, FI: vihje.

A custos (plural: custodes) is a staff symbol that appears at the end of a staff line with monophonic musical contents (i.e., with a single voice). It anticipates the pitch of the first note

of the following line and thus helps the player or singer to manage line breaks during performance, which enhances the readability of a score.

Custodes were frequently used in music notation until the 16th century. There were different appearances for different notation styles. Nowadays, they have survived only in special forms of musical notation such as the *Editio Vaticana*, dating from the beginning of the 20th century



See also

No cross-references.

1.78 cut time

See also

Section 1.11 [alla breve], page 4.

1.79 D

- ES: re
- I: re
- F: ré
- D: D, d
- NL: d
- DK: d
- S: d
- FI: D, d

See also

Chapter 3 [Pitch names], page 86.

1.80 da capo

ES: da capo, I: da capo, F: da capo, depuis le commencement, D: da capo, von Anfang, NL: da capo, DK: da capo, S: da capo, FI: da capo, alusta.

Abbreviated *D.C.* Indicates that the piece is to be repeated from the beginning to the end or to a certain place marked *Fine*.

See also

Section 1.9 [al fine], page 3, Section 1.82 [dal segno], page 21, Section 1.131 [fine], page 32.

1.81 dal niente

ES: dal niente, de la nada, I: dal niente, F: partant de rien, D: aus dem Nichts (kommen), dal niente, NL: ?, DK: dal niente, S: ?, FI: tyhjästä ilmaantuen.

[Italian: 'from nothing'] Used with *crescendo* to indicate that the sound should gradually increase from nothing.
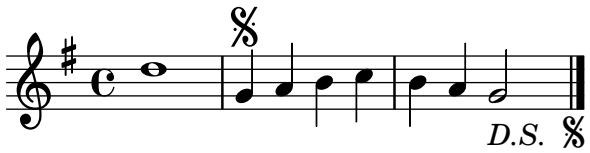
See also

Section 1.10 [al niente], page 3.

1.82 dal segno

ES: dal segno, I: dal segno, F: dal segno, depuis le signe, D: dal segno, ab dem Zeichen, NL: dal segno, DK: dal segno, S: dal segno, FI: dal segno, lähtien merkistä.

Abbreviated *D.S.* Repetition, not from the beginning, but from another place frequently near the beginning marked by a sign (*segno*):
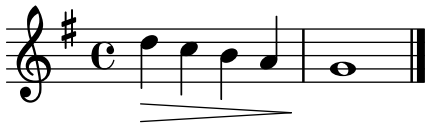


See also

Section 1.9 [al fine], page 3, Section 1.80 [da capo], page 20, Section 1.131 [fine], page 32.

1.83 decrescendo

ES: decrescendo, I: decrescendo, D: Decrescendo, leiser werden, NL: decrescendo, DK: decrescendo, S: decrescendo, FI: decresendo, hiljentyen.

Decreasing tone volume. Indicated by a leftwards opening horizontal wedge (hairpin) or the abbreviation *decresc.*



See also

Section 1.75 [crescendo], page 19, Section 1.88 [diminuendo], page 23, Section 1.152 [hairpin], page 36.

1.84 descending interval

ES: intervalo descendente, I: intervallo discendente, F: intervalle descendant, D: fallendes Intervall, absteigendes Intervall, NL: dalend interval, DK: faldende interval, S: fallande intervall, FI: laskeva intervalli.

A distance between a starting higher note and a lower ending note.

See also

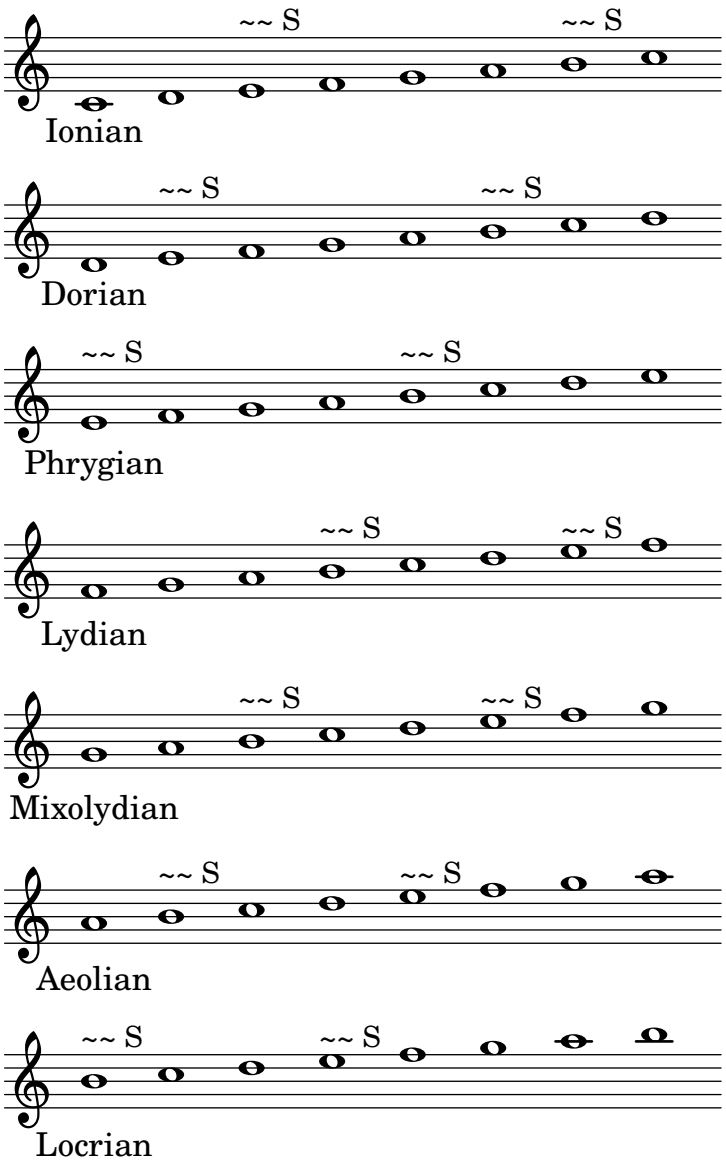
No cross-references.

1.85 diatonic scale

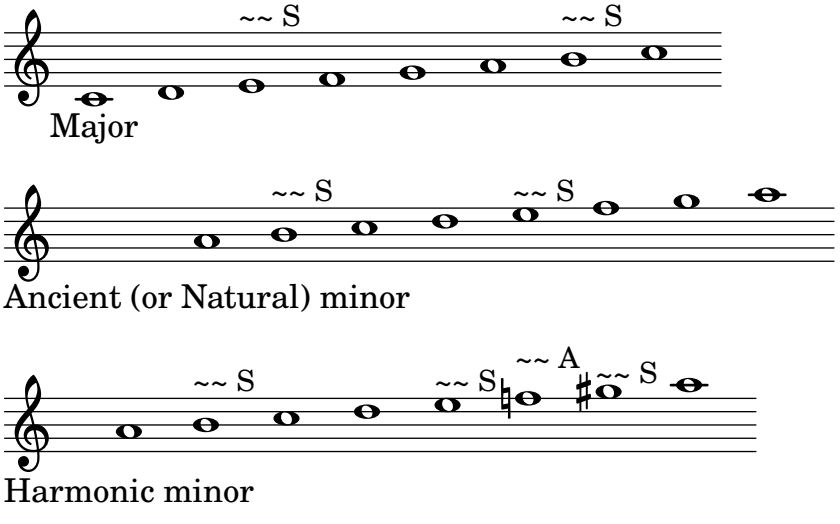
ES: escala diatónica, I: scala diatonica, F: gamme diatonique, D: diatonische Tonleiter, NL: diatonische toonladder, DK: diatonisk skala, S: diatonisk skala, FI: diatoninen asteikko.

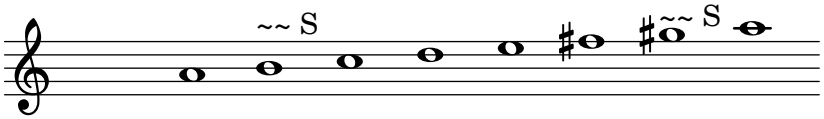
A scale consisting of 5 whole tones and 2 semitones (S). Scales played on the white keys of a piano keyboard are diatonic. These scales are sometimes called, somewhat inaccurately, 'church modes').

These *modes* are used in Gregorian chant and in pre-baroque early music but also to some extent in newer jazz music.

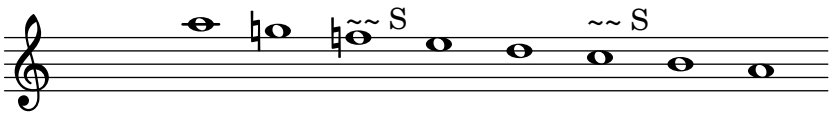


From the beginning of the 17th century the scales used in European compositional music are primarily the major and the minor scales. In the harmonic minor scale type an augmented second (A) occurs between the 6th and 7th tone.





Melodic minor ascending



Melodic minor descending

See also

Section 1.271 [semitone], page 67, Section 1.343 [whole tone], page 82.

1.86 didymic comma

See also

Section 1.307 [syntonic comma], page 75.

1.87 diminished interval

ES: intervalo disminuido, I: intervallo diminuito, F: intervalle diminué, D: vermindertes Intervall, NL: verminderd interval, DK: formindsket interval, S: förminskat intervall, FI: vähennetty intervalli.

See also

Section 1.164 [interval], page 40.

1.88 diminuendo

ES: diminuendo, I: diminuendo, F: diminuendo, en diminuant, D: diminuendo, NL: diminuendo, DK: diminuendo, S: diminuendo, FI: diminuendo, hiljentyen.

Abbreviated *dim.* It indicates a decrease in tone volume.

See also

Section 1.83 [decrescendo], page 21.

1.89 diminution

ES: disminución, I: diminuzione, F: diminution, D: Diminution, NL: ?, DK: diminution, S: ?, FI: aika-arvojen tihennys.

This is a stub for diminution (*wrt* mensural notation).

See also

Section 1.25 [augmentation], page 7, Section 1.196 [mensural notation], page 47.

1.90 direct

ES: directo, I: ?, F: direct, D: Weiser, Zeiger, NL: ?, DK: custos, S: ?, FI: suora.
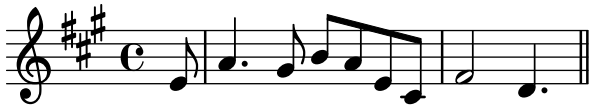
See also

Section 1.77 [custos], page 19.

1.91 disjunct movement

ES: movimiento disjunto, I: moto disgiunto, F: mouvement disjoint, D: sprunghafte Bewegung, NL: sprongsgewijze beweging, DK: springende bevægelse, S: hoppande rörelse, FI: melodian hyppivä liike.

Progressing melodically by intervals larger than a major second, as contrasted with conjunct movement.



See also

Section 1.69 [conjunct movement], page 18.

1.92 dissonance

Another name for Section 1.93 [dissonant interval], page 24.

See also

Section 1.93 [dissonant interval], page 24, Section 1.157 [harmony], page 38.

1.93 dissonant interval

ES: intervalo disonante, disonancia, I: intervallo dissonante, dissonanza, F: intervalle dissonant, dissonance, D: Dissonanz, NL: dissonant interval, dissonant, DK: dissonerende interval, dissonans, S: dissonans, FI: dissonanssi, dissonoiva intervalli, riitasointi.

See also

Section 1.157 [harmony], page 38.

1.94 divisio

ES: división, I: divisio, F: division, D: Divisio, NL: ?, DK: divisio, S: ?, FI: jäsennysmerkki.

[Latin: 'division'; pl. *divisiones*] In Gregorian chant, a vertical stroke through part or all of the staff that serves to structure a chant into phrases and sections. There are four types:

- *divisio minima*, a short pause
- *divisio maior*, a medium pause
- *divisio maxima*, a long pause
- *finalis*, to indicate the end of a chant, or the end of a section in a long antiphonal or responsorial chant.

TODO: musical example here?

See also

No cross-references.

1.95 doit

ES: elevación [de tono], I: portamento indeterminato verso l'alto/l'acuto, F: saut, D: Glissando aufwärts zu unbestimmter Tonhöhe, NL: ?, DK: glissando stigende til udefineret tonehøjde, S: ?, FI: nousu.

Indicator for an indeterminately rising pitch bend. Compare with *glissando*, which has determinate starting and ending pitches.

See also

Section 1.126 [fall], page 31, Section 1.146 [glissando], page 35.

1.96 dominant

ES: dominante, I: dominante, F: dominante, D: Dominante, NL: dominant, DK: dominant, S: dominant, FI: dominantti, huippusointu.

The fifth *scale degree* in *functional harmony*.

See also

Section 1.143 [functional harmony], page 34, Section 1.266 [scale degree], page 66.

1.97 dominant ninth chord

ES: acorde de novena de dominante, I: accordo di nona di dominante, F: accord de neuvième de dominante, D: Dominantnonenakkord, NL: dominant noon akkoord, DK: dominantnoneakkord, S: dominantnonackord, FI: dominanttinoonisointu.

See also

Section 1.53 [chord], page 13, Section 1.143 [functional harmony], page 34.

1.98 dominant seventh chord

ES: acorde de séptima de dominante, I: accordo di settima di dominante, F: accord de septième de dominante, D: Dominantseptakkord, NL: dominant septiem akkoord, DK: dominantseptimakkord, S: dominantseptimackord, FI: dominanttiseptimisointu.

See also

Section 1.53 [chord], page 13, Section 1.143 [functional harmony], page 34.

1.99 dorian mode

ES: modo dórico, I: modo dorico, F: mode dorien, D: dorisch, dorischer Kirchenton, NL: dorische toonladder, DK: dorisk skala, S: dorisk tonart, FI: doorinen moodi.

See also

Section 1.85 [diatonic scale], page 21.

1.100 dot (augmentation dot)

ES: puntillo, I: punto (di valore), F: point, D: Punkt (Verlängerungspunkt), NL: punt, DK: punkt, S: punkt, FI: piste.

See also

Section 1.101 [dotted note], page 25, Section 1.223 [note value], page 55.

1.101 dotted note

ES: nota con puntillo, I: nota puntata, F: note pointée, D: punktierte Note, NL: gepuncteerde noot, DK: punkteret node, S: punkterad not, FI: pisteellinen nuotti.

See also

Section 1.223 [note value], page 55.

1.102 double appoggiatura

ES: apoyatura doble, I: appoggiatura doppia, F: appoggiature double, D: doppelter Vorschlag, NL: dubbele voorslag, DK: dobbelt forslag, S: dubbelslag, FI: kaksoisappoggiatura, kaksoisetuhele.

See also

Section 1.20 [appoggiatura], page 6.

1.103 double bar line

ES: doble barra, I: doppia barra, F: double barre, D: Doppelstrich, NL: dubbele maatstreep, DK: dobbeltstreg, S: dubbelstreck, FI: kaksoistahtiviiva.

Indicates the end of a section within a movement.

See also

No cross-references.

1.104 double dotted note

ES: nota con doble puntillo, I: nota doppiamente puntata, F: note doublement pointée, D: doppelt punktierte Note, NL: dubbelgepuncteerde noot, DK: dobbeltpunkteret node, S: dubbelpunkterad not, FI: kaksoispisteellinen nuotti.

See also

Section 1.223 [note value], page 55.

1.105 double flat

ES: doble bemol, I: doppio bemolle, F: double bémol, D: Doppel-B, NL: dubbelmol, DK: dobbelt-b, S: dubbelbe, FI: kaksoisalennusmerkki.

See also

Section 1.7 [accidental], page 2.

1.106 double sharp

ES: doble sostenido, I: doppio diesis, F: double dièse, D: Doppelkreuz, NL: dubbelkruis, DK: dobbeltkryds, S: dubbelkors, FI: kaksoisylennysmerkki.

See also

Section 1.7 [accidental], page 2.

1.107 double time signature

ES: compás polimétrico, I: indicazione di tempo doppia/polimetrica, F: mesure composée, métrique composée, D: zusammengesetzte Taktart, NL: ?, DK: sammensat taktart, S: ?, FI: kaksois-aika-arvomerkintä.

See also

Section 1.245 [polymetric time signature], page 60.

1.108 double trill

ES: trino doble, I: doppio trillo, F: trille double, D: Doppeltriller, NL: dubbele triller, DK: dobbelttrille, S: dubbeldrill, FI: kaksoistrilli.

A simultaneous trill on two notes, usually in the distance of a third.

See also

No cross-references.

1.109 duple meter

ES: tiempo binario, I: tempo binario, F: métrique binaire, D: in zwei, gerader Takt, NL: tweedelige maatsoort, DK: todelt takt, S: tvåtakt, FI: kaksoistempo.

See also

Section 1.199 [meter], page 49.

1.110 duplet

ES: dosillo, I: duina, F: duolet, D: Duole, NL: duool, DK: duol, S: duol, FI: duoli.

See also

Section 1.223 [note value], page 55.

1.111 duration

ES: duración, I: durata, F: durée, D: Dauer, Länge, NL: duur, lengte, DK: varighed, S: tonlängd, FI: kesto, aika-arvo.

See also

Section 1.223 [note value], page 55.

1.112 dynamics

ES: dinámica, matices, I: dinamica, F: nuances, D: Dynamik, Lautstärke, NL: ?, DK: dynamik, S: ?, FI: äänen voimakkuusvaihtelu, dynamiikka.

The aspect of music relating to degrees of loudness, or changes from one degree to another. The terms, abbreviations, and symbols used to indicate this information are called dynamic marks.

See also

Section 1.239 [piano], page 59, Section 1.137 [forte], page 33, Section 1.75 [crescendo], page 19, Section 1.83 [decrescendo], page 21, Section 1.88 [diminuendo], page 23.

1.113 E

- ES: mi
- I: mi
- F: mi
- D: E, e
- NL: e
- DK: e

- S: e
- FI: E, e

See also

Chapter 3 [Pitch names], page 86.

1.114 ecclesiastical mode

See also

Section 1.57 [church mode], page 14, Section 1.85 [diatonic scale], page 21.

1.115 eighth note

- UK: quaver
- ES: corchea
- I: croma
- F: croche
- D: Achtel, Achtelnote
- NL: achtste noot
- DK: ottendedelsnode
- S: åttondelsnot
- FI: kahdeksasosanuotti

See also

Section 1.223 [note value], page 55.

1.116 eighth rest

- UK: quaver rest
- ES: silencio de corchea
- I: pausa di croma
- F: demi-soupir
- D: Achtelpause
- NL: achtste rust
- DK: ottendedelspause
- S: åttonddelspaus
- FI: kahdeksasosatauko

See also

Section 1.223 [note value], page 55.

1.117 elision

ES: sinalefa, I: elisione, F: élision, D: Elision, NL: ?, DK: elision, sammentrækning, S: ?, FI: tavujen yhdistäminen yhteen ääneen.

More properly *synalepha* [New Lat. > Gr. $\sigma\upsilon\nu\alpha\lambda\omicron\iota\phi\eta$, from Greek $\sigma\upsilon\nu\alpha\lambda\omicron\iota\phi\eta\nu$ 'to smear together'].

The singing of several syllables on a single note. Elision may be indicated by a lyric tie, which looks like (and serves the same function) as a musical tie.

See also

Section 1.184 [lyric tie], page 45.

1.118 embellishment

See also

Section 1.229 [ornament], page 57.

1.119 engraving

ES: grabado, I: incisione, F: gravure, D: Notenstich, Notendruck NL: steken, DK: nodestik, S: nottryck, FI: painatus.

Engraving means incising or etching a metal plate for printing. Photoengraving means drawing music with ink in a manner similar to drafting or engineering drawing, using similar tools.

The traditional process of music printing is done through cutting in a plate of metal. Now also the term for the art of music typesetting.
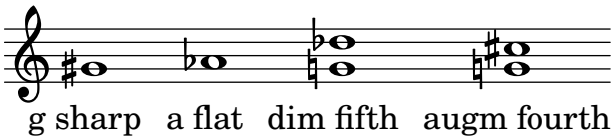
See also

No cross-references.

1.120 enharmonic

ES: enarmónico, I: enarmonico, F: enharmonique, D: enharmonisch, NL: enharmonisch, DK: enharmonisk, S: enharmonisk, FI: enharmoninen.

Two notes, intervals, or scales are enharmonic if they have different names but equal pitch.



See also

No cross-references.

1.121 equal temperament

ES: temperamento igual, I: temperamento equabile, F: tempérament égal, D: gleichschwebende Stimmung, NL: gelijkzwevende temperatuur, DK: ligesvævende temperatur, S: liksvävande temperatur, FI: tasavireinen.

A tuning system that divides the octave into 12 equal semitones (each of which is precisely equal to 100 cents).

See also

Section 1.51 [cent], page 13, Section 1.271 [semitone], page 67, Section 1.309 [temperament], page 75.

1.122 expression mark

ES: expresión, I: segno d'espressione, F: signe d'expression, indication de nuance, D: Vortragszeichen, NL: voordrachtsteken, DK: foredragsbetegnelse, S: föredragsbeteckning, FI: nyanssiosoitus, esitysmerkki.

Performance indications concerning:

- volume, dynamics (for example, *forte*, *crescendo*),
- tempo (for example, *andante*, *allegro*).

See also

Section 1.12 [allegro], page 4, Section 1.19 [andante], page 5, Section 1.75 [crescendo], page 19, Section 1.137 [forte], page 33.

1.123 extender line

ES: línea de extensión [de melisma, de bajo cifrado, etc.], I: linea di estensione, F: ligne d'extension [de mélisme, de basse chiffrée, etc.], D: Fülllinie, NL: ?, DK: melismelinje, S: ?, FI: pidennysviiva.

The generic term (in LilyPond) for a line (or dash) of arbitrary length that extends text (without indicating the musical *function* of that text).

Used in many contexts, for example:

- In vocal music to indicate the syllable for a melisma. Called 'extension' in the Dolmetsch Online Music Dictionary (`https://www.dolmetsch.com/defse1.htm`).
- In figured bass to indicate that:
  - The extended note should be held through a change in harmony, when applied to one figure –OR–
  - The chord thus represented should be held above a moving bass line, when applied to more than one figure.
  - These uses were not completely standardized, and some composers used a single extender line to indicate the latter case.
- In string music to indicate that all notes in the passage thus indicated should be played on the same string. On the violin, for example, a series of notes to be played on the G string would be indicated *sul G*, another series to be played on the D string would be indicated *sul D*, and so on.
- With an octave mark to indicate that a passage is to be played higher or lower by the given number of octaves.

See also

Section 1.193 [melisma], page 47, Section 1.302 [sul G], page 73, Section 1.317 [thorough bass], page 77, Section 1.226 [octave mark], page 56, Section 1.227 [octave marking], page 57.

1.124 F

- ES: fa
- I: fa
- F: fa
- D: F, f
- NL: f
- DK: f
- S: f
- FI: F, f

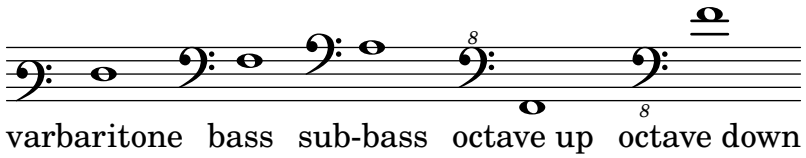
See also

Chapter 3 [Pitch names], page 86.

1.125 F clef

ES: clave de fa, I: chiave di fa, F: clef de fa, D: F-Schlüssel, NL: F-sleutel, DK: F-nøgle, S: f-klav, FI: F-avain.

The position between the dots of the key symbol is the line of the F below central C. Used on the third, fourth and fifth note line. A digit 8 above the clef symbol indicates that the notes must be played an octave higher (for example, bass recorder) while 8 below the clef symbol indicates playing an octave lower (for example, on the Double Bass).



See also

Section 1.33 [baritone clef], page 9, Section 1.297 [strings], page 73.

1.126 fall

ES: caída [de tono], I: portamento indeterminato verso il basso/il grave, F: chute, D: Glissando abwärts zu unbestimmter Tonhöhe, NL: ?, DK: glissando faldende til udefineret tonehøjde, S: ?, FI: lasku.

Indicator for an indeterminately falling pitch bend. Compare with *glissando*, which has determinate starting and ending pitches.

See also

Section 1.95 [doit], page 24, Section 1.146 [glissando], page 35.

1.127 feathered beam

ES: barra progresiva, I: travatura convergente/divergente, F: ligature en soufflet, lien de croches en soufflet, D: gespreizter Balken, NL: ?, DK: udspredte bjælker, fjerformede bjælker, S: ?, FI: kiilapalkki.

A type of beam used to indicate that a small group of notes should be played at an increasing or decreasing tempo – depending on the direction of 'feathering' – but without changing the overall tempo of the piece.
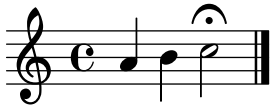
See also

Internals Reference: Section "Manual beams" in *Notation Reference*.

1.128 fermata

ES: calderón, I: corona, F: point d'orgue, point d'arrêt, D: Fermate, NL: fermate, DK: fermat, S: fermat, FI: fermaatti, pidäke.

Prolonged note or rest of indefinite duration.



See also

No cross-references.

1.129 fifth

ES: quinta, I: quinta, F: quinte, D: Quint, Quinte, NL: kwint, DK: kvint, S: kvint, FI: kvintti.

See also

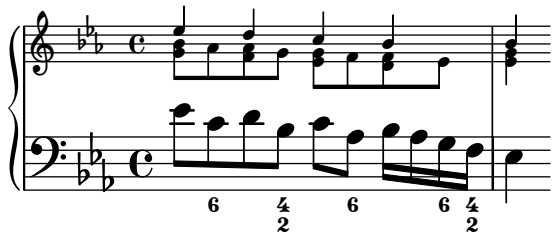
Section 1.164 [interval], page 40.

1.130 figured bass

ES: bajo cifrado, I: basso continuo, basso numerato, F: basse chiffrée, basse continue, D: Generalbass, bezifferter Bass, NL: basso continuo, becijferde bas DK: generalbas, S: generalbas, FI: kenraalibasso, numeroitu basso.

Also called 'thorough bass'.

A method of indicating an accompaniment part by the bass notes only, together with figures designating the chief intervals and chords to be played above the bass notes.



See also

Section 1.53 [chord], page 13, Section 1.164 [interval], page 40.

1.131 fine

[Italian: 'end']

Indicates the end of the piece when it is not the written end of the music.

See also

Section 1.80 [da capo], page 20, Section 1.82 [dal segno], page 21.

1.132 fingering

ES: digitación, I: diteggiatura, F: doigté, D: Fingersatz, NL: vingerzetting, DK: fingersætning, S: fingersättning, FI: sormitus.

Figures to the side or above the note that methodically indicate which fingers to use while playing a passage.
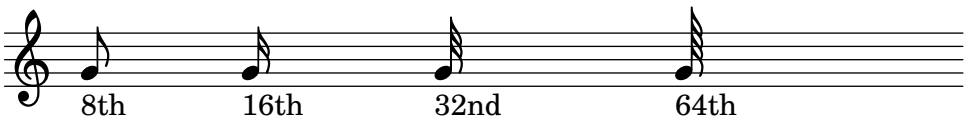
See also

No cross-references.

1.133 flag

ES: corchete, I: coda (uncinata), bandiera, F: crochet, D: Fahne, Fähnchen, NL: vlaggetje, DK: fane, S: flagga, FI: lippu, viiri.

Ornament at the end of the stem of a note used for notes with values less than a quarter note. The number of flags determines the note value.



See also

Section 1.223 [note value], page 55.

1.134 flageolet

ES: armónico, I: armonico, F: flageolet, D: Flageolett, NL: ?, DK: flageolet, S: ?, FI: flageolet-ääni.

An articulation for string players that means the note or passage is to be played in harmonics.

Also:

- A duct flute similar to the recorder.
- An organ stop of flute scale at 1' or 2' pitch.

See also

Section 1.23 [articulation], page 7, Section 1.156 [harmonics], page 38.

1.135 flat

ES: bemol, I: bemolle, F: bémol, D: B, NL: mol, DK: b, S: beförtecken, FI: alennusmerkki.

See also

Section 1.7 [accidental], page 2.

1.136 forefall

See also

Section 1.20 [appoggiatura], page 6.

1.137 forte

ES: forte, fuerte, I: forte, F: forte, D: forte, laut, NL: forte, DK: forte, S: forte, FI: forte, voimakkaasti.

[Italian: 'loud']

Abbreviated **f**. Variants include:

- *mezzo forte*, medium loud (notated **mf**),
- *fortissimo*, very loud (notated **ff**).

See also

No cross-references.

1.138 fourth

ES: cuarta, I: quarta, F: quarte, D: Quart, Quarte, NL: kwart, DK: kvart, S: kvart, FI: kvartti.

See also

Section 1.164 [interval], page 40.

1.139 Frenched score

ES: partitura a la francesa, I: partitura senza i righi vuoti, F: partition à la française, D: Orchesterpartitur ohne leere Systeme, NL: ?, DK: partitur uden tomme systemer, S: ?, FI: partituuri ilman tyhjiä nuottiviivastoja.

A 'condensed' score, produced by omitting staves for instruments that are not playing at the moment, and by moving up additional systems from following pages to take up the space thus liberated, which reduces the total number of pages used to print the work.

The specific rules for 'frenching' a score differ from publisher to publisher. If you are producing scores for eventual publication by a commercial publisher, you may wish to procure a copy of their style manual.

See also

Section 1.140 [Frenched staff], page 34.

1.140 Frenched staff

ES: pentagrama a la francesa, I: rigo temporaneo, F: portée à la française, D: zeitweiliges Notensystem, NL: ?, DK: midlertidigt system, ossia-noder, S: ?, FI: karsittu nuotinnus.

[Pl. *Frenched staves*] Analogous to Frenched scores (*q.v*), a Frenched staff has unneeded measures or sections removed. This is useful for producing, for example, an *ossia* staff.

See also

Section 1.230 [ossia], page 58.

1.141 Frenched staves

Plural of Section 1.140 [Frenched staff], page 34.

1.142 fugue

ES: fuga, I: fuga, F: fugue, D: Fuge, NL: fuga, DK: fuga, S: fuga, FI: fuuga.

See also

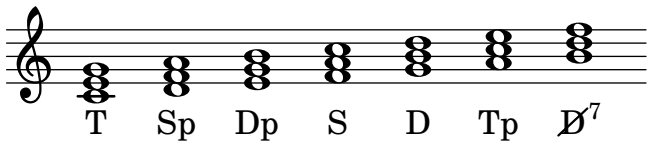
Section 1.73 [counterpoint], page 18.

1.143 functional harmony

ES: armonía funcional, I: armonia funzionale, F: étude des functions, D: Funktionslehre, NL: functionele harmonie, DK: funktionsanalyse, funktionsharmonik, S: funktionslära, FI: harmoniajärjestelmä.

A system of harmonic analysis.

It is based on the idea that, in a given key, there are only three functionally different chords: tonic (T, the chord on the first note of the scale), subdominant (S, the chord on the fourth note), and dominant (D, the chord on the fifth note). Others are considered to be variants of the base chords. A few examples among many others are the tonic, subdominant or dominant of the parallel minor scale, or the incomplete dominant seventh chord.



See also

Section 1.96 [dominant], page 25, Section 1.163 [incomplete dominant seventh chord], page 40, Section 1.299 [subdominant], page 73, Section 1.322 [tonic], page 78.

1.144 G

- ES: sol
- I: sol
- F: sol
- D: G, g
- NL: g
- DK: g
- S: g
- FI: G, g
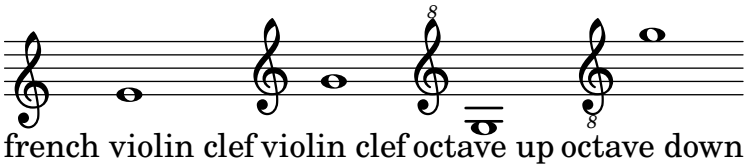
See also

Chapter 3 [Pitch names], page 86.

1.145 G clef

ES: clave de sol, I: chiave di sol, F: clef de sol, D: G-Schlüssel, Violinschlüssel, NL: G-sleutel, DK: g-nøgle, S: g-klav, FI: G-avain.

A clef symbol that indicates G above middle C. Used on the first and second note lines. A digit 8 above the clef symbol indicates that the notes must be played an octave higher while 8 below the clef symbol indicates playing or singing an octave lower (used most frequently to notate the tenor part in modern choral scores).



See also

No cross-references.

1.146 glissando

ES: glissando, I: glissando, F: glissando, D: Glissando, NL: glissando, DK: glissando, S: glissando, FI: glissando, liukuen.

Letting the pitch slide fluently from one note to the other.

See also

No cross-references.

1.147 grace notes

ES: notas de adorno, I: abbellimenti, F: ornement, fioriture, D: Verzierungen, Vorschläge, Vorschlagsnoten, NL: versieringen, DK: forsiringer, S: ornament, FI: korunuotit.

Notes printed in small types to indicate that their time values are not counted in the rhythm of the bar.

See also

Section 1.6 [acciaccatura], page 2, Section 1.20 [appoggiatura], page 6, Section 1.211 [mordent], page 53, Section 1.229 [ornament], page 57.

1.148 grand staff

ES: sistema de piano, I: accollatura, F: système [de portées], accolade, D: Akkolade, Klaviersystem, NL: piano systeem, DK: klaversystem, S: ackolad, böjd klammer, FI: kaksoisnuottiviivasto.

A combination of two staves with a brace. Usually used for piano music.

See also

Section 1.40 [brace], page 10.

1.149 grave

ES: grave, I: grave, F: grave, lent, D: Grave, Langsam, NL: grave, ernstig, DK: grave, S: grave, FI: grave, raskaasti.

[Italian] Slow, solemn.

See also

No cross-references.

1.150 gruppetto

See also

Section 1.334 [turn], page 80.

1.151 H

- ES: si
- I: si
- F: si
- D: H, h
- NL: b
- DK: h
- S: h
- FI: H, h
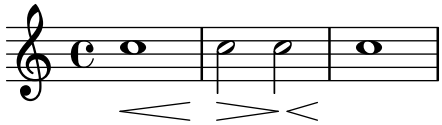
Letter name used for *B natural* in German and Scandinavian usage. In the standard usage of these countries, *B* means *B flat*.

See also

Chapter 3 [Pitch names], page 86, Section 1.28 [B], page 8.

1.152 hairpin

Graphical version of the *crescendo* and *decrescendo* dynamic marks.



See also

Section 1.75 [crescendo], page 19, Section 1.83 [decrescendo], page 21.

1.153 half note

- UK: minim,
- ES: blanca,
- I: minima,
- F: blanche,
- D: Halbe, halbe Note,
- NL: halve noot,
- DK: halvnode,
- S: halvnot,
- FI: puolinuotti.

See also

Section 1.223 [note value], page 55.

1.154 half rest

- UK: minim rest,
- ES: silencio de blanca,
- I: pausa di minima,
- F: demi-pause,
- D: halbe Pause,
- NL: halve, rust,
- DK: halvnodespause,
- S: halvpaus,
- FI: puolitauko.

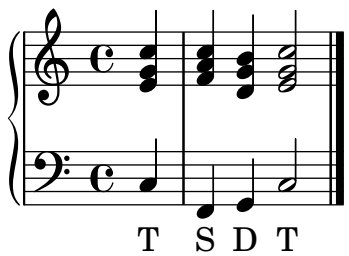
See also

Section 1.223 [note value], page 55.

1.155 harmonic cadence

ES: cadencia (armónica), I: cadenza (armonica), F: cadence harmonique, D: Schlusskadenz, NL: harmonische cadens, DK: harmonisk kadence, S: (harmonisk) kadens, FI: harmoninen kadenssi.

A sequence of chords that terminates a musical phrase or section.



See also

Section 1.143 [functional harmony], page 34.

1.156 harmonics

ES: armónicos, sonidos aflautados, I: armonici, F: flageolet, sons harmoniques, D: Flageolett-Töne, NL: ?, DK: flageolettoner, S: ?, FI: harmoniset äänet, huiluäänet.

The general class of pitches produced by sounding the second or higher harmonic of a tone producer: string, column of air, and so on.

On stringed instruments, these pitches sound rather flute-like; hence, their name in languages other than English. They are produced by lightly touching the string at a node for the desired mode of vibration while it is being bowed or plucked.

For instruments of the violin family, there are two types of harmonics: natural harmonics, which are those played on the open string; and artificial harmonics, which are produced on stopped strings.

See also

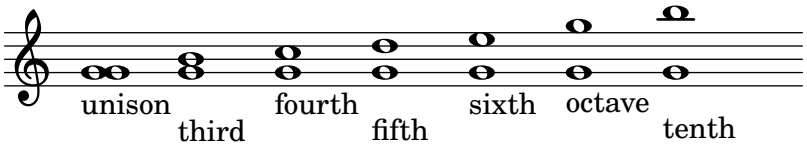
No cross-references.

1.157 harmony

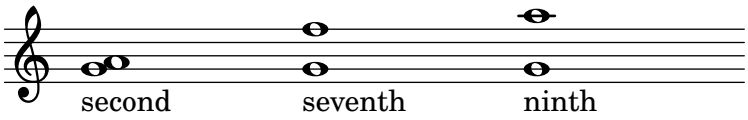
ES: armonía, I: armonia, F: harmonie, D: Harmonie, Zusammenklang, NL: harmonie, DK: samklang, S: samklang, FI: harmonia, yhteissointi.

Tones sounding simultaneously. Two note harmonies fall into the categories *consonances* and *dissonances*.

Consonances:



Dissonances:



For harmony that uses three or more notes, see Section 1.53 [chord], page 13.

See also

Section 1.53 [chord], page 13.
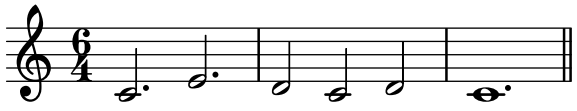
1.158 hemiola

ES: hemiolia, I: emiolia, (rarely hemiola or emiola), F: hémiole, D: Hemiole, NL: ?, DK: hæmiol, S: ?, FI: hemioli, 3/2 -suhde.
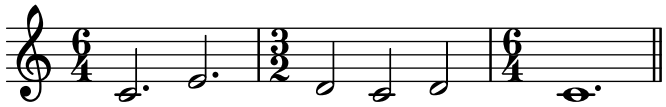
[Greek: in Latin, *sesquialtera*] The ratio 3:2.

Most frequently, a proportion (*q.v.*) of three notes of equal value in the time normally occupied by two. The resulting rhythm can be expressed in modern terms as a substitution (for example) of a bar in 3/2 for one of 6/4, or of a bar in 3/4 for one of 6/8. During the Baroque era, hemiola is most frequently as a special effect (or *affect*) at cadences.

For example, this phrase in 6/4 time



may be thought of having alternating time signatures



and is therefore a polymeter (second definition) of considerable antiquity.

See also

Section 1.196 [mensural notation], page 47, Section 1.199 [meter], page 49, Section 1.243 [polymeter], page 60, Section 1.250 [proportion], page 61.

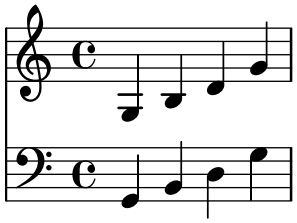
1.159 high bass clef

ES: ?, I: ?, F: clef de basse haute, D: hoher Bassschlüssel, NL: ?, DK: høj basnøgle, S: ?, FI: ?.

Beginning in 18th century the high bass clef used in French Horn parts for the lowest pitches. This usage of the F clef was then passed down from the French Horn to the Basset Horn and then to the Bass Clarinet. It looks identical to the standard bass clef, but is pitched an octave higher – octavation indicators on clefs appeared at the beginning of the 20th Century.

In LilyPond, the most straightforward way to make a high bass clef is to print the modern version `\clef "bass^8"` but without the `8`;

```
<<
  \new Staff {
    \clef treble { g4 b d' g' }
  }
  \new Staff \with { \omit ClefModifier }
  { \clef "bass^8" { g4 b d' g' } }
>>
```



See also

Section 1.125 [F clef], page 31, Section 1.35 [bass clef], page 9.

1.160 homophony

ES: homofonía, I: omofonia, F: homophonie, D: Homophonie, NL: homofonie, DK: homofoni, S: homofoni, FI: homofonia, yksiäänisyys.

Music in which one voice leads melodically supported by the other voices in the same rhythm (more or less). In contrast to *polyphony*.

See also

Section 1.246 [polyphony], page 60.

1.161 hook

See also

Section 1.133 [flag], page 32.

1.162 hymn meter

ES: ?, I: metrica dell'inno, F: ?, D: Silbenanzahl, NL: ?, DK: stavelsesantal, S: ?, FI: säkeiden tavumäärät.

A group or list of numbers that indicate the number of syllables in a line of a hymn's verse. Different hymnals have different ways of noting the hymn meter: for example, consider a hymn that has four lines in two couplets alternating regularly between eight and seven syllables. The *English Hymnal* notes this as 87. 87. Other hymnals may note it as 8787, 87.87, or 8 7 8 7.

Some frequently-used hymn meters have traditional names:

- 66.86 is called Short Meter (abbreviated SM or S.M.)
- 86.86 is called Common Meter (CM or C.M.)
- 88.88 is called Long Meter (LM or L.M.)

Some hymns and their tunes are doubled versions of a simpler meter: for easier reading, a hymn with a meter of 87.87.87.87 is usually written 87.87D. The traditional names above also have doubled versions:

- 66.86.66.86 is Double Short Meter (DSM or D.S.M.)
- 86.86.86.86 is Double Common Meter (DCM or D.C.M.)
- 88.88.88.88 is Double Long Meter (DLM or D.L.M.)

See also

No cross-references.

1.163 incomplete dominant seventh chord

ES: ?, I: accordo di settima dominante incompleto, F: accord de septième de dominante incomplet, D: verkürzter Dominantseptakkord, NL: ?, DK: ufuldstændig dominantseptimakkord, S: ?, FI: ?.

A dominant seventh chord where the root tone is removed. The remaining three tones build a diminished triad.

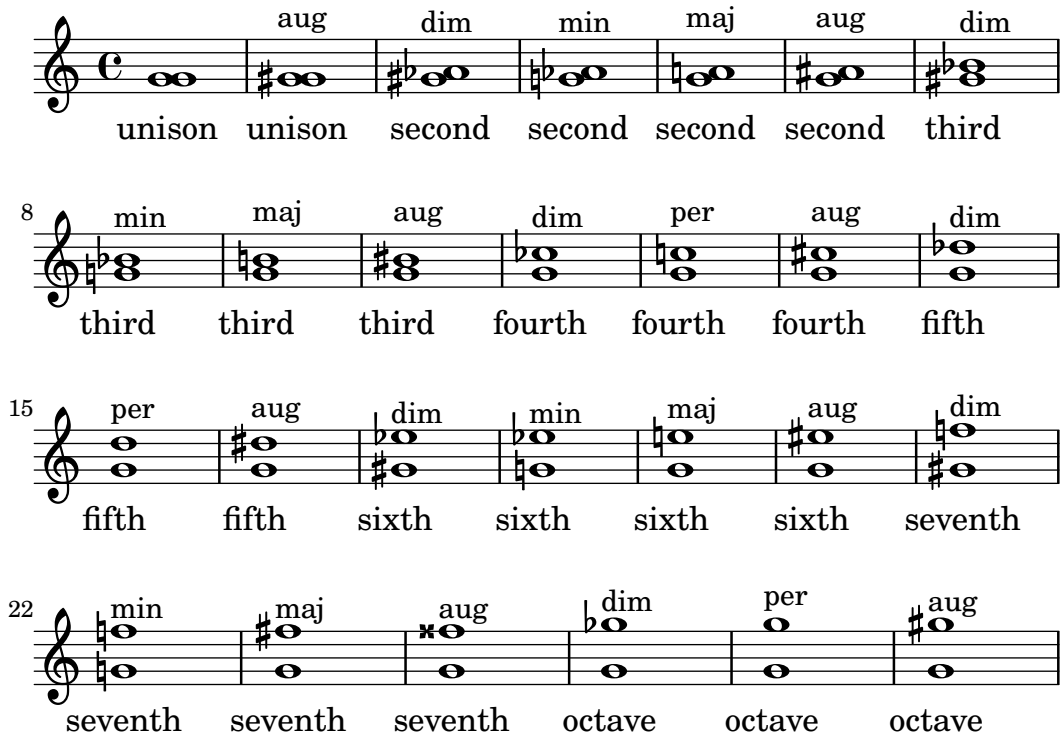
See also

Section 1.53 [chord], page 13, Section 1.98 [dominant seventh chord], page 25, Section 1.143 [functional harmony], page 34.

1.164 interval

ES: intervalo, I: intervallo, F: intervalle, D: Intervall, NL: interval, DK: interval, S: intervall, FI: intervalli, kahden sävelen korkeusero.

Difference in pitch between two notes. Intervals may be diminished, minor, perfect, major, or augmented. The augmented fourth and the diminished fifth are identical (or *enharmonic*) on an equal-tempered twelve-tone scale and are called *tritonus* because they consist of three whole tones. The addition of such two intervals forms an octave.



See also

Section 1.120 [enharmonic], page 29, Section 1.343 [whole tone], page 82.

1.165 inversion

ES: inversión, I: rivolto, F: renversement, D: Umkehrung, NL: ?, DK: omvending, S: ?, FI: käännös.

When a chord sounds with a bass note that differs from the root of the chord, it is said to be *inverted*. The number of inversions that a chord can have is one fewer than the number of constituent notes. For example, triads (which have three constituent notes) can have three positions, two of which are inversions:

Root position
: The root note is in the bass, and above that are the third and the fifth. A triad built on the first scale degree, for example, is marked *I*.

First inversion
: The third is in the bass, and above it are the fifth and the root. This creates an interval of a sixth and a third above the bass note, and so is marked in figured Roman notation as *6/3*. This is commonly abbreviated to *I6* (or *Ib*) since the sixth is the characteristic interval of the inversion, and so always implies *6/3*.

Second inversion
: The fifth is in the bass, and above it are the root and the third. This creates an interval of a sixth and a fourth above the bass note, and so is marked as *I6/4* or *Ic*. Second inversion is the most unstable chord position.

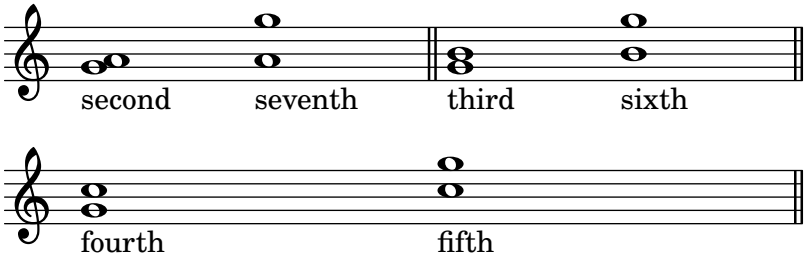
See also

No cross-references.

1.166 inverted interval

ES: intervalo invertido, I: intervallo rivolto, F: intervalle renversé, D: umgekehrtes Intervall, NL: interval inversie, DK: omvendingsinterval, S: intervallets omvändning, FI: käänteisintervalli.

The difference between an interval and an octave.



See also

No cross-references.

1.167 just intonation

ES: entonación justa, I: intonazione giusta, F: intonation juste, D: reine Stimmung, NL: reine stemming, DK: ren stemning, S: ren stämning, FI: puhdas viritys.

Tuning system in which the notes are obtained by adding and subtracting natural fifths and thirds.

See also

Section 1.309 [temperament], page 75.

1.168 key

ES: tonalidad, I: tonalità, F: tonalité, D: Tonart, NL: toonsoort, DK: toneart, S: tonart, FI: tonaliteetti.

According to the 12 tones of the *chromatic scale* there are 12 keys, one on c, one on c-sharp, etc.

See also

Section 1.55 [chromatic scale], page 14, Section 1.169 [key signature], page 42.

1.169 key signature

ES: armadura (de la clave), I: armatura di chiave, F: armure, armature [de la clé], D: Vorzeichen, Tonart, NL: toonsoort (voortekens), DK: faste fortegn, S: tonartssignatur, FI: sävellajiosoitus.

The sharps or flats appearing at the beginning of each staff indicating the key of the music.

See also

Section 1.7 [accidental], page 2.

1.170 Kievan notation

A form of medieval music notation used predominantly in the chantbooks of the Russian Orthodox Church as well as Carpatho-Russian and Ukrainian jurisdictions of Orthodoxy and Byzantine-rite Catholicism. It is characterized by the square shape of its noteheads.

1.171 laissez vibrer

ES: dejar vibrar, I: laissez vibrer, F: laissez vibrer, D: Laissez vibrer, schwingen lassen, NL: ?, DK: laissez vibrer, lad klinge ud, S: ?, FI: antaa väristä.

[French: 'Let vibrate'] Most frequently associated with harp parts. Marked *l.v.* in the score.

See also

No cross-references.

1.172 largo

ES: largo, I: largo, F: largo, large, ample, D: Largo, Langsam, Breit, NL: largo, DK: largo, S: largo, FI: largo, hitaasti, leveästi.

[Italian: 'wide'.] Very slow in tempo, usually combined with great expressiveness. *Larghetto* is less slow than largo.

1.173 leading note

ES: sensible, I: sensibile, F: (note) sensible, D: Leitton, NL: leidtoon, DK: ledetone, S: ledton, FI: johtosävel.

The seventh *scale degree*, a *semitone* below the tonic; so called because of its strong tendency to 'lead up' (resolve upwards) to the tonic scale degree.

See also

Section 1.266 [scale degree], page 66, Section 1.271 [semitone], page 67.

1.174 ledger line

ES: línea adicional, I: tagli addizionali, F: ligne supplémentaire, D: Hilfslinie, NL: hulplijntje, DK: hjælpelinie, S: hjälplinje, FI: apuviiva.

A ledger line is an extension of the staff.
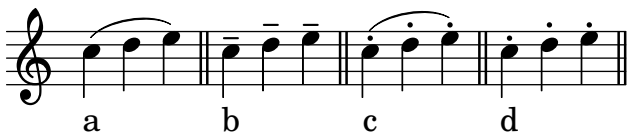


See also

No cross-references.

1.175 legato

ES: legato, I: legato, F: legato, lié, D: legato, gebunden, NL: legato, DK: legato, S: legato, FI: legato, sitoen.

To be performed (a) without any perceptible interruption between the notes, unlike (b) *leggiero* or *non-legato*, (c) *portato*, or (d) *staccato*.



See also

Section 1.292 [staccato], page 72.

1.176 legato curve

See also

Section 1.286 [slur], page 70, Section 1.175 [legato], page 43.

1.177 leger line

See also

Section 1.174 [ledger line], page 43.

1.178 ligature

ES: ligadura, I: ligatura, F: ligature, DE: Ligatur, NL: ?, DK: ligatur, S: ?, FI: ligatuura.

A ligature is a coherent graphical symbol that represents at least two distinct notes. Ligatures originally appeared in the manuscripts of Gregorian chant notation around the 9th century to denote ascending or descending sequences of notes. In early notation, ligatures were used for monophonic tunes (Gregorian chant) and very soon denoted also the way of performance in the sense of articulation. With the invention of the metric system of the white mensural notation, the need for ligatures to denote such patterns disappeared.

See also

Section 1.196 [mensural notation], page 47.

1.179 lilypond

UK: lily pond, ES: estanque de nenúfares, I: stagno del giglio, F: étang de nénuphars, étang de nymphéas, D: Seerosenteich, NL: lelievijver, DK: liliedam, S: liljedamm, FI: liljalampi.

A pond with lilies floating in it.

Also, the name of a music typesetting program.

See also

No cross-references.

1.180 line

ES: línea, I: linea, F: ligne, D: Linie, Notenlinie, NL: lijn, DK: nodelinie, S: notlinje, FI: viiva, nuottiviiva.

See also

Section 1.293 [staff], page 72.

1.181 loco

ES: en su lugar, I: loco, F: loco, D: loco, NL: ?, DK: loco, S: ?, FI: kirjoitetussa äänenkorkeudessa.

[Italian: ‘place’] Instruction to play the following passage at the written pitch. Cancels octave mark (q.v.).

See also

Section 1.226 [octave mark], page 56, Section 1.227 [octave marking], page 57.

1.182 long appoggiatura

ES: apoyatura larga, I: appoggiatura lunga, F: appoggiature longue, D: langer Vorhalt, NL: Lange voorslag, DK: langt forslag, S: långt förslag, FI: pitkä appoggiatura, pitkä etuhele.

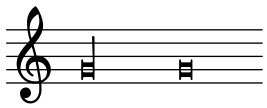
See also

Section 1.20 [appoggiatura], page 6.

1.183 longa

- US: long, longa,
- ES: longa,
- I: longa,
- F: longa, longue,
- D: Longa,
- NL: longa,
- DK: longa,
- S: longa,
- FI: longa.

Note value: twice the length of a *breve*.



See also

Section 1.44 [breve], page 11, Section 1.223 [note value], page 55.

1.184 lyric tie

ES: ligadura de letra, I: legatura del testo, F: ligature de mots, D: Textbindung, NL: ?, DK: tekstsammenbinding, S: ?, FI: sidonta sanoituksessa.

See also

Section 1.117 [elision], page 28.

1.185 lyrics

ES: letra (de la canción), I: testo, F: paroles, D: Liedtext, Gesangstext, NL: liedtekst, DK: sangtekst, S: ?, FI: sanoitus.

See also

No cross-references.

1.186 major

ES: mayor, I: maggiore, F: [mode] majeur, D: Dur, NL: majeur, DK: dur, S: dur, FI: duuri.

See also

Section 1.85 [diatonic scale], page 21.

1.187 major interval

ES: intervalo mayor, I: intervallo maggiore, F: intervalle majeur, D: großes Intervall, NL: groot interval, DK: stort interval, S: stort intervall, FI: suuri intervalli.

See also

Section 1.164 [interval], page 40.

1.188 maxima

ES: máxima, I: maxima, F: maxima, maxime, D: Maxima, NL: ?, DK: maxima, S: ?, FI: maxima.

Note value: twice the length of a *longa*.

The maxima is the largest duration in use during the 15th and 16th centuries. Like the longa, the maxima can be either two or three times as long as the *longa* (called *binary* and *ternary*, respectively). By the late 15th century, most composers used the smaller proportion by default.

See also

Chapter 2 [Duration names notes and rests], page 83, Section 1.183 [longa], page 45, Section 1.223 [note value], page 55.

1.189 meantone temperament

ES: afinación mesotónica, I: accordatura mesotonica, F: tempérament mésotonique, D: mitteltönige Stimmung, NL: middenstemming, middentoonstemming, DK: middeltonetemperatur, S: medeltonstemperatur, FI: keskisävelviritys.

Temperament yielding acoustically pure thirds by decreasing the natural fifth by 16 cents. Due to the non-circular character of this temperament only a limited set of keys are playable. Used for tuning keyboard instruments for performance of pre-1650 music.

See also

Section 1.51 [cent], page 13, Section 1.309 [temperament], page 75.

1.190 measure

ES: compás, I: misura, battuta, F: mesure, D: Takt, NL: maat, DK: takt, S: takt, FI: tahti.

A group of beats (units of musical time) the first of which bears an accent. Such groups in numbers of two or more recur consistently throughout the composition and are separated from each other by bar lines.

See also

Section 1.31 [bar line], page 8, Section 1.37 [beat], page 9, Section 1.199 [meter], page 49.

1.191 measure repeat

See also

Section 1.234 [percent repeat], page 58.

1.192 mediant

ES: mediante, I: mediante, modale, F: médiante, NL: mediant, D: Mediante, DK: mediant, S: mediant, FI: keskisävel.

- The third **scale degree**.

- A *chord* having its base tone a third from that of another chord. For example, the tonic chord may be replaced by its lower mediant (variant tonic).

See also

Section 1.53 [chord], page 13, Section 1.143 [functional harmony], page 34, Section 1.259 [relative key], page 64.

1.193 melisma

ES: melisma, I: melisma, F: mélisme, vocalise, D: Melisma, NL: melisma, DK: melisme, S: ?, FI: melisma, laulettavan tavun sävelkuvio.

A melisma (Greek: plural *melismata*) is a group of notes or tones sung on one syllable, especially as applied to liturgical chant.

See also

No cross-references.

1.194 melisma line

ES: línea de melisma, I: linea del melisma, F: trait de mélisme, trait de tenue, D: Fülllinie, NL: ?, DK: melismelinje, S: ?, FI: melismaviiva.

See also

Section 1.123 [extender line], page 30.

1.195 melodic cadence

See also

Section 1.48 [cadenza], page 12.

1.196 mensural notation

ES: notación mensural, I: notazione mensurale, F: notation mensurale, D: Mensuralnotation, NL: ?, DK: mensuralnotation, S: ?, FI: mensuraalinuotinnus.

A system of duration notation whose principles were first established in the mid-13th century, and that (with various changes) remained in use until about 1600. As such, it is the basis for the notation of rhythms in Western musical notation.

Franco of Cologne (ca. 1250) is credited with the first systematic explanation of the notation's principles, so the notation of this earliest period is called 'Franconian'. Franco's system made use of three note values – long, breve, and semibreve – each of which was normally equivalent to three of the next lower note value.

Then, in the first half of the 14th century, Philippe de Vitry and Jehan de Murs added several note values (the minim, semiminim and fusa) and extended Franco's principles to govern the relationship between these values. They also put the duple division of note values on an equal footing with the earlier (preferred) triple division.

TODO: continue description of French and Italian black notation, and the relationship betwixt them.

White or void mensural notation

In the 15th century, hollow (or void) notes began to substitute for the earlier solid black ones, which were then free to assume the function of red (or colored) notes in the earlier notation. ...

TODO: add to definition (including summary info on proportional notation)

See also

Section 1.25 [augmentation], page 7, Section 1.89 [diminution], page 23, Section 1.178 [ligature], page 44, Section 1.250 [proportion], page 61.

1.197 mensuration sign

ES: signo de mensuración, I: indicazione mensurale, F: signe de mensuration, D: Mensurzeichen, NL: ?, DK: mensurtegn, S: ?, FI: ?.

The ancestor of the time signature, mensuration signs were used to indicate the relationship between two sets of note durations—specifically, the ratio of breves to semibreves (called *tempus*), and of semibreves to minims (called *prolatio*).

Each ratio was represented with a single single sign, and was either three-to-one (ternary) or two-to-one (binary), as in modern music notation. Unlike modern music notation, the *ternary* ratio was the preferred one—applied to the *tempus*, it was called *perfect*, and was represented by a complete circle; applied to the *prolatio*, it was called *major* and was represented by a dot in the middle of the sign. The binary ratio applied to the *tempus* was called *imperfect*, and was represented by an incomplete circle; applied to *prolatio*, it was called *minor* and was represented by the lack of an internal dot. There are four possible combinations, which can be represented in modern time signatures with and without reduction of note values. (These signs are hard-coded in LilyPond with reduction.)

perfect tempus with major prolatio
: Indicated by a complete circle with an internal dot. In modern time signatures, this equals:
  - 9/4, with reduction or
  - 9/2, without reduction

perfect tempus and minor prolatio
: Indicated by a complete circle without an internal dot. In modern time signatures, this equals:
  - 3/2, with reduction or
  - 3/1, without reduction

imperfect tempus and major prolatio
: Indicated by an incomplete circle with an internal dot. In modern time signatures, this equals:
  - 6/4, with reduction or
  - 6/2, without reduction

imperfect tempus and minor prolatio
: Indicated by an incomplete circle without an internal dot. In modern time signatures, this equals:
  - 4/4, with reduction or
  - 2/1, without reduction

The last mensuration sign *looks* like common-time because it *is*, with note values reduced from the original semibreve to a modern quarter note. Being doubly imperfect, this sign represented the (theoretically) least-preferred mensuration, but it was actually used fairly often.

This system extended to the ratio of longer note values to each other:

- maxima to longa, called:
  - *modus maximorum*,
  - *modus major*, or

  - *maximodus*)
- longa to breve, called:
  - *modus longarum*,
  - *modus minor*, or
  - *modus*

In the absence of any other indication, these modes were assumed to be binary. The mensuration signs only indicated tempus and prolatio, so composers needed another way to indicate these longer ratios (called modes. Around the middle of the 15th century started to use groups of rests at the beginning of the staff, preceding the mensuration sign.

Two mensuration signs have survived to the present day: the C-shaped sign, which originally designated *tempus imperfectum* and *prolatio minor* now stands for *common time*; and the slashed C, which designated the same with *diminution* now stands for *cut time* (essentially, it has not lost its original meaning).

See also

Section 1.89 [diminution], page 23, Section 1.250 [proportion], page 61, Section 1.320 [time signature], page 77.

1.198 mensurstrich

ES: ?, I: ?, F: ?, D: Mensurstrich, NL: ?, DK: mensurstreg, S: ?, FI: ?.

A bar line drawn between staves.

See also

Section 1.196 [mensural notation], page 47.

1.199 meter

ES: tiempo, compás, I: tempo, misura, F: indication de mesure, mesure, D: Taktart, Metrum, NL: maatsoort, DK: taktart, S: taktart, FI: aika-arvo.

The pattern of note values and accents in a composition or a section thereof. There are a couple ways to classify 'traditional' meter (i.e., not polymeter): by grouping beats and by subdividing the primary beat.

By grouping beats:

- **duple**: groups of two.
- **triple**: groups of three.
- **quadruple**: groups of four. A special case of duple meter.
- **quintuple**: groups of five beats.
- **sextuple** meter: groups of six. A special case of:
  - duple meter, subdivided in three; or
  - triple meter, subdivided in two.
- **septuple** meter: groups of seven.
- and so on.

Other than triple meter and its subdivided variants (see below), meters that feature odd groupings of beats (e.g., quintuple or septuple meter) are not frequently used prior to the 20th Century.
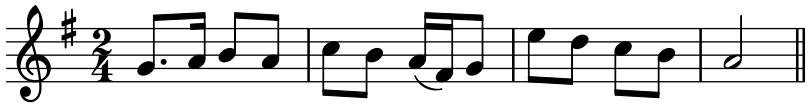
By subdividing the primary beat:

- simple: subdivided in groups of two.
  - duple: 2/2, 2/4, 2/8
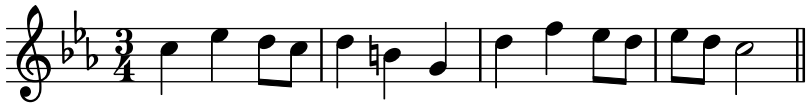
  - triple: 3/2, 3/4, 3/8
  - quadruple: 4/2, 4/4 (also called common time), 4/8
- compound: subdivided in groups of three.
  - duple: 6/8
  - triple: 9/8
  - quadruple: 12/8

Time signatures are placed at the beginning of a composition (or section) to indicate the meter. For instance, a piece written in simple triple meter with a beat on each quarter note is conventionally written with a time signature of 3/4. Here are some combinations of the two classifications above:
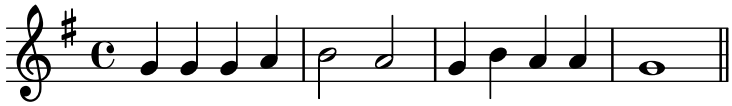
Simple duple meter (F.J. Haydn, 1732-1809; or a Croatian folk tune):
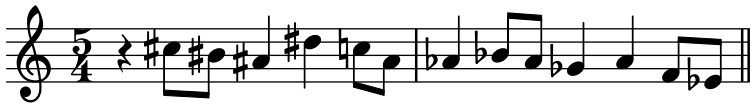


Simple triple meter:



Simple quadruple meter (French folk tune, *Au clair de la lune*):
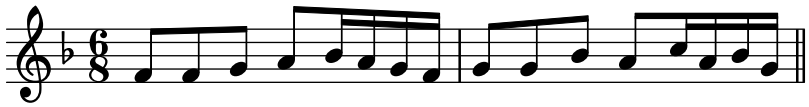


Simple quintuple meter (B. Marcello, 1686-1739):
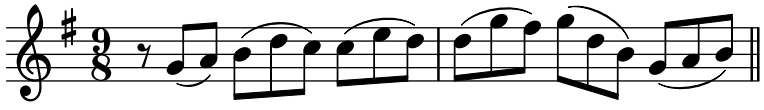


(Aside: this is an example of *Augenmusik*: the accidentals are thus in the source, with sharps in the accompaniment where the voice has flats and *vice versa*.)

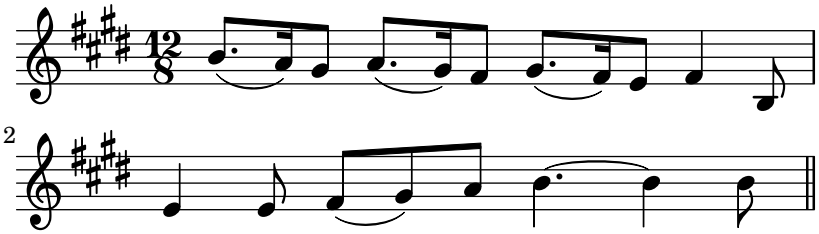
Compound duple meter (unknown):



Compound triple meter (J.S. Bach, 1685-1750):



Compound quadruple meter (P. Yon, 1886-1943):



See also

Section 1.4 [accent], page 2, Section 1.158 [hemiola], page 38, Section 1.223 [note value], page 55, Section 1.320 [time signature], page 77.

1.200 metronome

ES: metrónomo, I: metronomo, F: métronome, D: Metronom, NL: metronoom, DK: metronom, S: metronom, FI: metronomi.

Device used to indicate the exact tempo of a piece.

Invented ca. 1812 by Dietrich Nikolaus Winkler of Amsterdam, but takes its name from Johann Nepomuk Mälzel, who copied the device, added a scale of tempo divisions, and patented it as a 'metronome'. The inevitable lawsuit that followed acknowledged Winkler as the creator, but by then Mälzel had already sold many of them, and people had taken to calling it a Mälzel Metronome.

See also

Section 1.201 [metronome mark], page 51.

1.201 metronome mark

ES: indicación metronómica, I: indicazione metronomica, F: indication métronomique, D: Metronomangabe, Tempoangabe NL: metronoom aanduiding, DK: metronomtal, S: metronomangivelse, FI: metronomiosoitus.

Exact tempo indication (in beats per minute). Abbreviated *M.M.* or *MM*, which is short for Mälzels Metronom (or Mälzel's Mark, *anglice*).

See also

Section 1.200 [metronome], page 51.

1.202 metronomic indication

See also

Section 1.201 [metronome mark], page 51.

1.203 mezzo

ES: mezzo, I: mezzo, F: mezzo, D: mezzo, etwas, NL: ?, DK: mezzo, S: ?, FI: kohtalaisen, melko.

[Italian: 'medium']

Used to qualify other indications, such as:

- Dynamics
  - *mezzo piano* is 'medium quiet' (that is, not as quiet as *piano*)
  - *mezzo forte* is 'medium loud' (that is, not as loud as *forte*)
- Voice
  - Pitchwise, a mezzo-soprano's voice lies between that of contraltos and sopranos

See also

No cross-references.

1.204 mezzo-soprano

ES: mezzosoprano, I: mezzo-soprano, F: mezzo-soprano, D: Mezzosopran, NL: mezzosopraan, DK: mezzosopran, S: mezzosopran, FI: mezzosopraano.

The female voice between soprano and contralto.

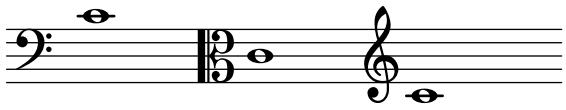
See also

Section 1.291 [soprano], page 71, Section 1.71 [contralto], page 18.

1.205 middle C

ES: do central, I: do centrale, F: do central, do 3, D: eingestrichenes c, NL: centrale c, DK: enstreget c, S: ettstruket c, FI: keski-C.

First C below the 440 Hz A.



See also

No cross-references.

1.206 minor

ES: menor, I: minore, F: (mode) mineur, D: Moll, NL: mineur, DK: mol, S: moll, FI: molli.

See also

Section 1.85 [diatonic scale], page 21.

1.207 minor interval

ES: intervalo menor, I: intervallo minore, F: intervalle mineur, D: kleines Intervall, NL: klein interval, DK: lille interval, S: litet intervall, FI: pieni intervalli.

See also

Section 1.164 [interval], page 40.

1.208 mixolydian mode

See also

Section 1.85 [diatonic scale], page 21.

1.209 mode

ES: modo, I: modo, F: mode, D: Kirchentonart, Modus, NL: modus, DK: skala, S: modus, skala, FI: moodi, kirkkosävelasteikko.

See also

Section 1.57 [church mode], page 14, Section 1.85 [diatonic scale], page 21.

1.210 modulation

ES: modulación, I: modulazione, F: modulation, D: Modulation, NL: modulatie, DK: modulation, S: modulering, FI: modulaatio, sävellajin vaihdos.

Moving from one Section 1.168 [key], page 42, to another. For example, the second subject of a Section 1.289 [sonata form], page 71, movement modulates to the dominant key if the key is major and to the Section 1.259 [relative key], page 64, if the key is minor.

See also

No cross-references.

1.211 mordent

I: mordente, F: mordant, D: Mordent, NL: mordent, DK: mordent, S: mordent, FI: mordent, korukuvio.

See also

Section 1.6 [acciaccatura], page 2, Section 1.20 [appoggiatura], page 6, Section 1.147 [grace notes], page 35, Section 1.229 [ornament], page 57.

1.212 motif
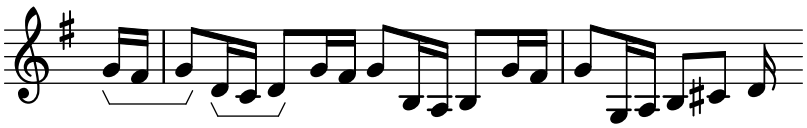
See also

Section 1.213 [motive], page 53.

1.213 motive

ES: motivo, I: inciso, F: motif, incise, D: Motiv, NL: motief, DK: motiv, S: motiv, FI: teema, sävelaihe.

The briefest intelligible and self-contained fragment of a musical theme or subject.



See also

No cross-references.

1.214 movement

ES: movimiento, I: movimento, F: mouvement, D: Satz, NL: deel, DK: sats, S: sats, FI: osa.

Greater musical works like Section 1.305 [symphony], page 74, and Section 1.288 [sonata], page 71, most often consist of several – more or less – independent pieces called movements.

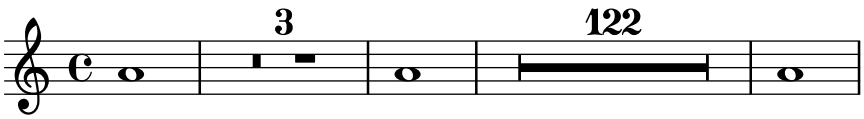
See also

No cross-references.

1.215 multi-measure rest

ES: compases de espera, silencio multicompás, I: pausa multipla, F: pause multiple, mesure à compter, NL: meermaats rust, D: mehrtaktige Pause, Kirchenpause, DK: flertaktspause, S: flertaktspaus, FI: usean tahdin mittainen tauko.

Multi-measure rests are conventionally typeset with a combination of longa, breve and whole rests for shorter and a long horizontal bar for longer spans of rest, with a number above to indicate the duration (in measures) of the rest. The former style is called 'Kirchenpausen' in German, as a reminiscence of its use in Renaissance vocal polyphony.



See also

Section 1.183 [longa], page 45, Section 1.44 [breve], page 11.

1.216 natural

ES: becuadro, I: bequadro, F: bécarre, D: Auflösungszeichen, NL: herstellingsteken, DK: opløsningstegn, S: återställningstecken, FI: palautusmerkki.

See also

Section 1.7 [accidental], page 2.

1.217 neighbor tones

ES: tonos vecinos, I: nota di volta, F: tons voisins, D: Nachbartöne, NL: ?, DK: nabotoner, S: ?, FI: ?.

See also

Section 1.6 [acciaccatura], page 2, Section 1.20 [appoggiatura], page 6, Section 1.147 [grace notes], page 35, Section 1.211 [mordent], page 53, Section 1.229 [ornament], page 57.

1.218 ninth

ES: novena, I: nona, F: neuvième, D: Non, None, NL: noon, DK: none, S: nona, FI: nooni.

See also

Section 1.164 [interval], page 40.

1.219 non-legato

See also

Section 1.175 [legato], page 43.

1.220 note

ES: nota, I: nota, F: note, D: Note, NL: noot, DK: node, S: not, FI: nuotti.

Notes are signs by means of which music is fixed in writing. The term is also used for the sound indicated by a note, and even for the key of the piano which produces the sound. However, a clear distinction between the terms tone and Section 1.220 [note], page 54, is strongly recommended. Briefly, one sees a note, and hears a tone.

See also

No cross-references.

1.221 note head

ES: cabeza, I: testa, testina, capocchia, F: tête de note, D: Notenkopf, NL: nootballetje, DK: nodehovede, S: nothuvud, FI: nuotin pää.

A head-like sign which indicates pitch by its position on a *staff* provided with a *clef*, and duration by a variety of shapes such as hollow or black heads with or without *stems*, *flags*, etc. For percussion instruments (often having no defined pitch) the note head may indicate the instrument.

See also

Section 1.58 [clef], page 14, Section 1.133 [flag], page 32, Section 1.293 [staff], page 72, Section 1.295 [stem], page 72.

1.222 note names

See also

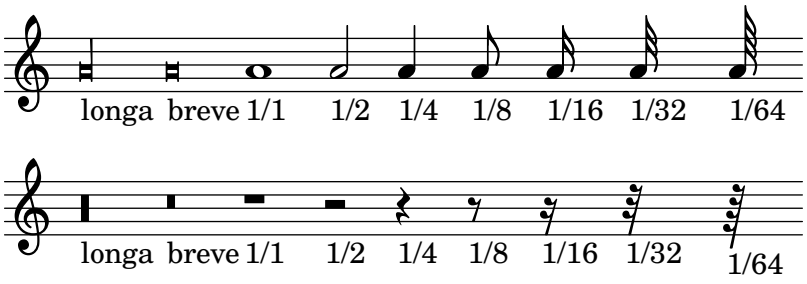
Chapter 3 [Pitch names], page 86.

1.223 note value
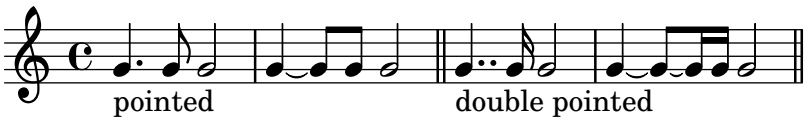
ES: valor, duración, I: valore, durata, F: durée, valeur (d'une note), D: Notenwert, NL: nootwaarde, DK nodeværdi, S: notvärde, FI: nuotin aika-arvo.

Note values (durations) are measured as fractions—in modern usage, one-half—of the next higher note value. The longest duration in current use is the *breve* (equal to two whole notes), but sometimes (especially in music dating from the Baroque era or earlier) the *longa* (four whole notes) or *maxima* (eight whole notes) may be found.

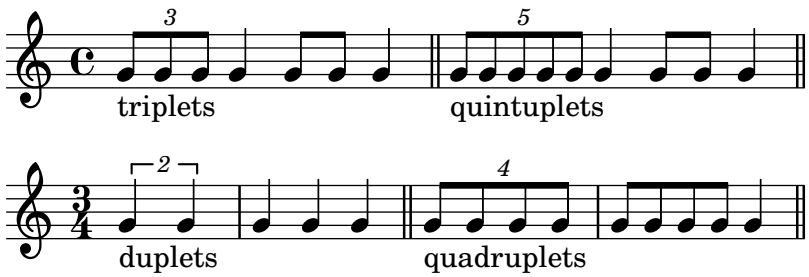
As used in mensural notation, this fraction was more flexible: it could also be one-third the higher note value. Composers indicated which proportions to use with various signs—two of which survive to the present day: the C-shaped sign for *common time*, and the slashed C for *alla breve* or *cut time*.



An augmentation dot after a note increases its duration by half; a second dot increases it by half of the first addition (that is, by a fourth of the original duration). More dots can be used to add further halved fractions of the original note value (1/8, 1/16, etc.), but they are not frequently encountered.



Alternatively note values may be subdivided by other ratios. Most common is subdivision by 3 (*triplets*) and 5 (*quintuplets*). Subdivisions by 2 (*duplets*) or 4 (*quadruplets*) of dotted notes are also frequently used.



See also

Section 1.63 [common time], page 16.

1.224 octavation

See also

Section 1.227 [octave marking], page 57.

1.225 octave

ES: octava, I: ottava, F: octave, D: Oktav, Oktave, NL: octaaf, DK: oktav, S: oktav, FI: oktaavi.

The interval of an octave, sometimes abbreviated *8ve*.

For uses like *all'ottava* or *8va* with an extender line or bracket, or *loco* see octave marking.

See also

Section 1.164 [interval], page 40, Section 1.227 [octave marking], page 57.

1.226 octave mark

ES: indicación de octava, I: segno di ottava, F: indication d'octave, D: Oktavierungszeichen, NL: ?, DK: oktaveringstegn, S: ?, FI: oktaavamerkki.

The phrase, abbreviation, or other mark used (with or without an extender line or bracket) to indicate that the music is to be played in a different octave:

- *15ma*: play two octaves higher
- *8va*: play one octave higher
- *8vb*: play one octave lower
- *8va* (written below the passage): unusual, same as *8vb*
- *15vb*: play two octaves lower
- *15va* (written below the passage): unusual, same as *15vb*

For longer passages, it may be more practical to mark the octave change at the beginning with a phrase (see the list below for examples), but without a bracket or extender line. Then, when the music returns to the written pitch, the octave change is canceled with the word *loco* (q.v.).

To parallel the list above:

- *15ma*: *alla quindicesima (alta)*
- *8va*: *all'ottava* or *ottava sopra*
- *8vb*: *all'ottava bassa*, *ottava sotto*
- *15vb*: *alla quindicesima (bassa)*

In the phrases above, *quindicesima* is sometimes replaced with *quindecima*, which is Latin.

The music on an entire staff can be marked to be played in a different octave by putting a small 8 or 15 above or below the clef at the beginning. This octave mark can be applied to any clef, but it is most frequently used with the G and F clefs.

See also

Section 1.125 [F clef], page 31, Section 1.145 [G clef], page 35, Section 1.181 [loco], page 44, Section 1.227 [octave marking], page 57.

1.227 octave marking

ES: a la octava, I: all'ottava, F: octaviation, D: Oktavierung, NL: octaveren, DK: oktavering, S: oktavering, FI: oktaavamerkintä.

The practice of marking music – an entire staff, a passage, etc. – to indicate that it is to be played in a different octave. If applied to the clef at the beginning of the staff, all music on that staff is to played at the indicated octave.

For a list of the specific marks used, see Section 1.226 [octave mark], page 56.

See also

Section 1.164 [interval], page 40, Section 1.181 [loco], page 44, Section 1.225 [octave], page 56, Section 1.226 [octave mark], page 56.

1.228 octave sign

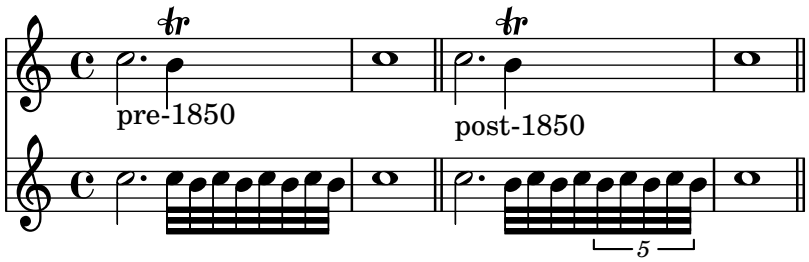
See also

Section 1.226 [octave mark], page 56.

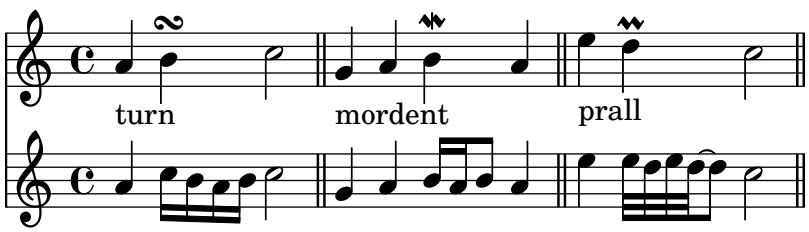
1.229 ornament

ES: adorno, I: abbellimento, fioriture, F: agrément, ornement, D: Verzierung, Ornament, NL: versiering, DK: forsiring, S: ornament, FI: koru, hele.

Most commonly used is the *trill*, the rapid alternation of a given note with the diatonic Section 1.269 [second], page 66, above it. In the music from the middle of the 19th century and onwards the trill is performed with the main note first while in the music from the preceding baroque and classic periods the upper note is played first.



Other frequently used ornaments are the *turn*, the *mordent*, and the *prall* (inverted mordent).



See also

Section 1.6 [acciaccatura], page 2, Section 1.20 [appoggiatura], page 6, Section 1.147 [grace notes], page 35, Section 1.211 [mordent], page 53.

1.230 ossia

ES: ossia, I: ossia, F: ossia, alternative, D: Ossia, NL: alternatief, DK: ossia, S: ossia, FI: ossia, vaihtoehtoinen esitystapa.

Ossia (otherwise) marks an alternative. It is an added staff or piano score, usually only a few measures long, which presents another version of the music, for example for small hands.

See also

Compare: Section 1.76 [cue-notes], page 19.

1.231 part

ES: parte, particella, I: voce, parte, F: partie, D: Stimme, NL: partij, DK: stemme, S: stämma, FI: stemma, instrumenttiosuus.

- In instrumental or choral music, the music for a single instrument or voice.
- in contrapuntal music, a single melodic line in the contrapuntal web.

See also

Section 1.73 [counterpoint], page 18.

1.232 pause

See also

Section 1.128 [fermata], page 31.

1.233 pennant

See also

Section 1.133 [flag], page 32.

1.234 percent repeat

LilyPond-specific term to indicate the repetition of a musical expression through simile marks.

See also

Section 1.278 [simile mark], page 68.

1.235 percussion

ES: percusión, I: percussioni, F: percussion, D: Schlagzeug, Schlagwerk, NL: slagwerk, DK: slagtøj, S: slagverk, FI: lyömäsoittimet.

A family of musical instruments which are played on by striking or shaking. Percussion instruments commonly used in a symphony orchestra are kettledrums (I: *timpani*, D: *Pauken*), snare drum, bass drum, tambourine, cymbals, Chinese gong (tam-tam), triangle, celesta, glockenspiel, and xylophone.

See also

No cross-references.

1.236 perfect interval

ES: intervalo justo, I: intervallo giusto, F: intervalle juste, D: reines Intervall, NL: rein interval, DK: rent interval, S: rent intervall, FI: puhdas intervalli.

See also

Section 1.164 [interval], page 40.

1.237 phrase

ES: frase, I: frase, F: phrase, D: Phrase, NL: frase, zin, DK: frase, S: fras, FI: fraasi, lause.

A natural division of the melodic line, comparable to a sentence of speech.

See also

Section 1.49 [caesura], page 12.

1.238 phrasing

ES: fraseo, I: fraseggio, F: phrasé, D: Phrasierung, NL: frasering, DK: frasering, S: frasering, FI: fraseeraus, jäsentäminen.

The clear rendering in musical performance of the *phrases* of the melody. Phrasing may be indicated by a *slur*.

See also

Section 1.237 [phrase], page 59, Section 1.286 [slur], page 70.

1.239 piano

ES: piano, suave, I: piano, F: piano, D: piano, leise, NL: piano, DK: piano, S: piano, FI, piano, hiljaa.

piano (**p**) soft, *pianissimo* (**pp**) very soft, *mezzo piano* (**mp**) medium soft.

See also

No cross-references.

1.240 pickup

ES: anacrusa, I: anacrusi, F: anacrouse, levée, D: Auftakt, NL: opmaat, DK: optakt, S: upptakt, FI: kohotahti.

See also

Section 1.17 [anacrusis], page 5.

1.241 pitch

ES: altura, I: altezza, F: hauteur, D: Tonhöhe, NL: toonhoogte, DK: tonehøjde, S: tonhöjd, FI: sävelkorkeus.

1. The perceived quality of a sound that is primarily a function of its fundamental frequency.
2. [FR. ton; DE. Ton; ES. tono] Any point on the continuum of musical pitch.
3. [FR. diapason; DE. Kammerton, Stimmung; ES. diapasón] The standardized association of a particular frequency with a particular pitch name, e.g., c' = 256 Hz.

See also

Chapter 3 [Pitch names], page 86.

1.242 pizzicato

ES: pizzicato, I: pizzicato, F: pizzicato, D: pizzicato, NL: pizzicato, getokkeld, DK: pizzicato, S: pizzicato, FI: pizzicato, näppäillen.

A technique for stringed instruments, abbr. *pizz.* To play by plucking the strings.

See also

No cross-references.

1.243 polymeter

ES: compás polimétrico, I: polimetria, F: polymétrie, D: Polymetrie, NL: ?, DK: polymetrik, S: ?, FI: monia tahtiosoituksia sisältävä.

- The *simultaneous* use of two or more meters, in two or more parts.
- The *successive* use of different meters in one or more parts.

See also

Section 1.244 [polymetric], page 60, (adjective).

1.244 polymetric

ES: polimétrico, I: polimetrico, F: polymétrique, D: polymetrisch, NL: ?, DK: polymetrisk, S: ?, FI: monia tahtiosoituksia yhtäaikaa tai peräkkäin sisältävä.

Characterized by *polymeter*: using two or more metric frameworks simultaneously or in alternation.

See also

Section 1.243 [polymeter], page 60, (noun).

1.245 polymetric time signature

ES: indicación de compás polimétrico, I: tempo polimetrico, F: métrique polymétrique, D: zusammengesetzte Taktart, NL: ?, DK: sammensat taktart, S: ?, FI: vaihtelevan tahtiosoitusmerkintä.

A time signature that indicates regularly alternating polymetric time.

See also

Section 1.244 [polymetric], page 60.

1.246 polyphony

ES: polifonía, I: polifonia, F: polyphonie, D: Polyphonie, Mehrstimmigkeit, NL: polyfonie, DK: polyfoni, S: polyfoni, FI: polyfonia, moniäänisyys.

Music written in a combination of several simultaneous voices (parts) of a more or less pronounced individuality.

See also

Section 1.73 [counterpoint], page 18.

1.247 portato

[Italian: past participle of *portare*, 'to carry']

A stroke in which each of several notes is separated slightly within a slur, without changing the bow's direction. It is used for passages of a *cantabile* character.

See also

Section 1.175 [legato], page 43.

1.248 power chord

A chord containing only the root and the fifth (possibly in multiple octaves). Commonly used in guitar music, particularly with electric guitar and high distortion.

See also

Section 1.53 [chord], page 13.

1.249 presto

ES: presto, muy rápido, I: presto, F: presto, très rapide, enlevé, D: Presto, Sehr schnell, NL: presto, Sehr schnell, DK: presto, S: presto, FI: presto, hyvin nopeasti.

[Italian]

Very quick, i.e., quicker than Section 1.12 [allegro], page 4; *prestissimo* denotes the highest possible degree of speed.

See also

No cross-references.

1.250 proportion

ES: proporción, I: proporzione, F: proportion, D: Proportio, NL: ?, DK: proportion, S: ?, FI: suhde.

[Latin: *proportio*] Described in great detail by Gaffurius, in *Practica musicae* (published in Milan in 1496). In mensural notation, proportion is:

1. A ratio that expresses the relationship between the note values that follow with those that precede;
2. A ratio between the note values of a passage and the 'normal' relationship of note values to the metrical pulse. (A special case of the first definition.)

The most common proportions are:

- 2:1 (or simply 2), expressed by a vertical line through the mensuration sign (the origin of the *alla breve* time signature), or by turning the sign backwards
- 3:1 (or simply 3)
- 3:2 (*sesquialtera*)

To 'cancel' any of these, the inverse proportion is applied. Thus:

- 1:2 cancels 2:1
- 1:3 cancels 3:1
- 2:3 cancels 3:2
- and so on.

Gaffurius enumerates five basic types of major:minor proportions and their inverses:

1. Multiplex, if the major number is an exact multiple of the minor (2:1, 3:1, 4:2, 6:3); and its inverse, Submultiplex (1:2, 1:3, 2:4, 3:6)
2. Epimoria or Superparticular [orig. *Epimoria seu Superparticularis*], if the major number is one more than the minor (3:2, 4:3, 5:4); and its inverse, Subsuperparticular (2:3, 3:4, 4:5)

3. Superpartiens, if the major number is one less than twice the minor (5:3, 7:4, 9:5, 11:6); and its inverse, subsuperpartiens (3:5, 4:7, 5:9, 6:11)
4. Multiplexsuperparticular, if the major number is one more than twice the minor (5:2, 7:3, 9:4); and its inverse, Submultiplexsuperparticular (2:5, 3:7, 4:9)
5. Multiplexsuperpartiens, if the major number is one less than some other multiple (usually three or four) of the minor (8:3, 11:4, 14:5, 11:3); and its inverse, Submultiplexsuperpartiens (3:8, 4:11, 5:14, 3:11)

He then continues to subdivide each type in various ways. For the multiplex proportions, for example, he indicates how many times greater the major number is than the minor:

- If two times greater, the proportion is *dupla*. If inverted, it's called *subdupla*. Examples: 2:1, 4:2, and 6:3.
- If three, *tripla*; and its inversion, *subtripla*. Example: 3:1, 6:2, and 9:3.
- If four, *quadrupla*; and its inversion, *subquadrupla*. Example: 4:1, 8:2, and 12:3

Other proportions were possible, but whether they were frequently used is another question:

- 33:9, *triplasuperbipartientetertias*
- 51:15, *triplasuperbipartientequintas*

See also

Section 1.196 [mensural notation], page 47.

1.251 Pythagorean comma

ES: coma pitagórica, I: comma pitagorico, F: comma pythagoricien, D: Pythagoräisches Komma, NL: komma van Pythagoras, DK: pythagoræisk komma, S: pytagoreiskt komma, FI: pytagorinen komma.

Originally, the interval by which the sum of six whole tones exceeds the octave – (9:8)^6 - 2:1 = 531441:524288, or 23.5 cents.

Modern acoustical theory defines it as the interval by which twelve fifths exceed seven octaves. To put it another way: A sequence of fifths that starts on C eventually circles back to C. However, this C is 23.5 Section 1.51 [cent], page 13s higher than the C obtained by adding 7 octaves. The difference between those two pitches is the Pythagorean comma.

See also

Section 1.51 [cent], page 13, Section 1.309 [temperament], page 75.

1.252 quadruplet

ES: cuatrillo, I: quartina, F: quartolet, D: Quartole, NL: kwartool, DK: kvartol, S: kvartol, FI: kvartoli.

See also

Section 1.223 [note value], page 55.

1.253 quality

ES: variante [de acorde o intervalo], I: qualità (?), F: qualité [d'accord ou d'intervalle], D: Modus (Dur oder Moll), NL: ?, DK: modus (dur eller mol), S: ?, FI: laatu.

The quality of a triad is determined by the precise arrangement of its intervals. Tertian triads can be described as a series of three notes. The first element is the root note (or simply 'root')

of the chord, the second note is the 'third' of the chord, and the last note is the 'fifth' of the chord. These are described below:

Chord name	Component intervals	Example	Symbol
major triad	major third/perfect fifth	C-E-G	C, CM, Cma, Cmaj, C^{Δ}
minor triad	minor third/perfect fifth	C-E♭-G	Cm, Cmi, Cmin, C-
augmented triad	major third/augmented fifth	C-E-G♯	C+, C^{+}, Caug
diminished triad	minor third/diminished fifth	C-E♭-G♭	Cm(♭5), C°, Cdim

There are various types of seventh chords depending on the quality of the original chord and the quality of the seventh added.

Five common types of seventh chords have standard symbols. The chord quality indications are sometimes superscripted and sometimes not (e.g. Dm7, Dm^7, and D^m7 are all identical). The last three chords are not commonly used except in jazz.

See also

Section 1.53 [chord], page 13.

1.254 quarter note

- UK: crotchet
- ES: negra
- I: semiminima, nera
- F: noire
- D: Viertel, Viertelnote
- NL: kwartnoot
- DK: fjerdedelsnode
- S: fjärdedelsnot
- FI: neljäsosanuotti

See also

Section 1.223 [note value], page 55.

1.255 quarter rest

- UK: crotchet rest
- ES: silencio de negra
- I: pausa di semiminima
- F: soupir
- D: Viertelpause
- NL: kwartrust
- DK: fjerdedelspause
- S: fjärdedelspaus
- FI: neljäsosatauko

See also

Section 1.223 [note value], page 55.

1.256 quarter tone

ES: cuarto de tono, I: quarto di tono, F: quart de ton, D: Viertelton, NL: kwart toon, DK: kvarttone, S: kvartston, FI: neljännessävelaskel.

An interval equal to half a semitone.

See also

Section 1.164 [interval], page 40.

1.257 quintuplet

ES: cinquillo, quintillo, I: quintina, F: quintolet, D: Quintole, NL: kwintool, DK: kvintol, S: kvintol, FI: kvintoli.

See also

Section 1.223 [note value], page 55.

1.258 rallentando

ES: rallentando, I: rallentando, F: rallentando, en ralentissant, D: rallentando, langsamer werden, NL: rallentando, DK: rallentando, S: rallentando, FI: rallerdando, hidastuen.

[Italian: 'slowing down']

Slackening in speed, more gradual than Section 1.263 [ritardando], page 65. Abbreviated to *rall.*

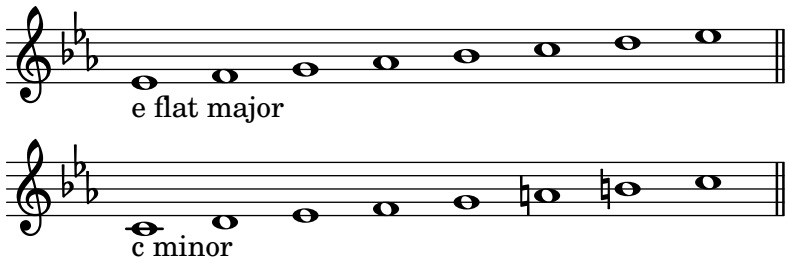
See also

Section 1.263 [ritardando], page 65.

1.259 relative key

ES: tono relativo, I: tonalità relativa, F: tonalité relative, D: Paralleltonart, NL: paralleltoonsoort, DK: paralleltoneart, S: parallelltonart, FI: rinnakkaissävellaji.

Major and minor keys that have the same key signature.
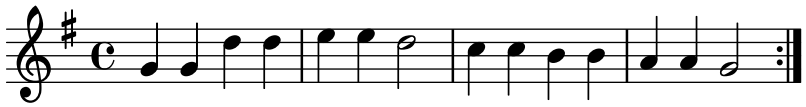


See also

Section 1.168 [key], page 42, Section 1.169 [key signature], page 42, Section 1.186 [major], page 45, Section 1.206 [minor], page 52.

1.260 repeat

ES: repetición, I: ripetizione, F: barre de reprise, D: Wiederholung, NL: herhaling, DK: gentagelse, S: repris, FI: toisto.



See also

No cross-references.

1.261 rest

ES: silencio, I: pausa, F: silence, D: Pause, NL: rust, DK: pause, S: paus, FI: tauko.

See also

Section 1.223 [note value], page 55.

1.262 rhythm

ES: ritmo, I: ritmo, F: rythme, D: Rhythmus, NL: ritme, DK: rytme, S: rytm, FI: rytmi.

- Metrical rhythm in which every time value is a multiple or fraction of a fixed unit of time, called *beat*, and in which the normal *accent* recurs in regular intervals, called *measure*. The basic scheme of time values is called *meter*.
- Measured rhythm which lacks regularly recurrent accent. In modern notation such music appears as a free alternation of different measures.
- Free rhythm, i.e., the use of temporal values having no common metrical unit (beat).

See also

Section 1.4 [accent], page 2, Section 1.37 [beat], page 9, Section 1.190 [measure], page 46, Section 1.199 [meter], page 49.

1.263 ritardando

ES: ritardando, retardando, I: ritardando, F: ritardando, en ralentissant, D: ritardando, langsamer werden, NL: ritardando, DK: ritardando, S: ritardando, FI: ritardando, hidastuen,

[Italian: 'lagging']

Gradual slowing down, more pronounced than Section 1.258 [rallentando], page 64. Mostly abbreviated to *rit.* or *ritard.*

See also

Section 1.258 [rallentando], page 64.

1.264 ritenuto

ES: ritenuto, reteniendo, I: ritenuto, F: ritenuto, en retenant, D: ritenuto, NL: ritenuto, DK: ritenuto, S: ritenuto, FI: ritenuto, hidastaen.

Immediate reduction of speed.

See also

No cross-references.

1.265 scale

ES: escala, I: scala, F: gamme, D: Tonleiter, NL: toonladder, DK: Skala, S: skala, FI: asteikko, sävelasteikko.

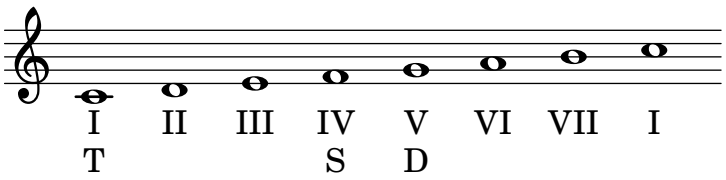
See also

Section 1.85 [diatonic scale], page 21.

1.266 scale degree

ES: grado (de la escala), I: grado della scala, F: degré [de la gamme], D: Tonleiterstufe, NL: trap [van de toonladder], DK: skalatrin, S: skalsteg (?), FI: sävelaste, asteikon sävel.

Names and symbols used in harmonic analysis to denote tones of the scale as roots of chords. The most important are degrees I = tonic (T), IV = subdominant (S) and V = dominant (D).



See also

Section 1.143 [functional harmony], page 34.

1.267 scordatura

ES: encordado, I: scordatura, F: à cordes ravallées, D: Skordatur, NL: ?, DK: scordatura, omstemning, S: ?, FI: epätavallinen viritys.

[Italian: *scordare*, 'to mistune'] Unconventional tuning of stringed instruments, particularly lutes or violins. Used to:

- facilitate pitch combinations that would otherwise be difficult or impossible
- alter the characteristic timbre of the instrument, for example, to increase brilliance
- reinforce certain sonorities or tonalities by making them available on open strings
- imitate other instruments
- etc.

Tunings that could be called *scordatura* first appeared early in the 16th Century and became commonplace in the 17th.

See also

No cross-references.

1.268 score

ES: partitura, I: partitura, F: partition, conducteur *(full score)*, D: Partitur (full score), Klavierauszug (vocal score), NL: partituur, DK: partitur, S: partitur, FI: partituuri.

A copy of orchestral, choral, or chamber music showing what each instrument is to play, each voice to sing, having each part arranged one underneath the other on different staves Section 1.293 [staff], page 72.

See also

No cross-references.

1.269 second

ES: segunda, I: seconda, F: seconde, D: Sekund, Sekunde, NL: secunde, DK: sekund, S: sekund, FI: sekunti.

The interval between two neighboring tones of a scale. A diatonic scale consists of alternating semitones and whole tones, hence the size of a second depends on the scale degrees in question.

See also

Section 1.85 [diatonic scale], page 21, Section 1.164 [interval], page 40, Section 1.271 [semitone], page 67, Section 1.343 [whole tone], page 82.

1.270 semibreve

- US: whole note,
- ES: redonda,
- I: semibreve,
- F: ronde,
- D: Ganze, ganze Note, Semibrevis,
- NL: hele noot,
- DK: helnode,
- S: helnot,
- FI: kokonuotti.

Note value: called *whole note* in the US.

The semibreve is the basis for the *tactus* in mensural notation (i.e., music written before ca. 1600).
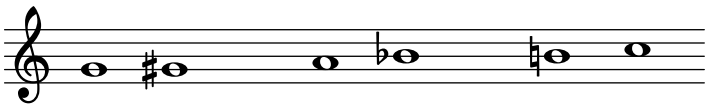
See also

Section 1.196 [mensural notation], page 47, Section 1.223 [note value], page 55.

1.271 semitone

ES: semitono, I: semitono, F: demi-ton, D: Halbton, NL: halve toon, DK: halvtone, S: halvton, FI: puolisävel.

The interval of a minor second. The (usually) smallest interval in European composed music. The interval between two neighboring tones on the piano keyboard – including black and white keys – is a semitone. An octave may be divided into 12 semitones.



See also

Section 1.164 [interval], page 40, Section 1.55 [chromatic scale], page 14.

1.272 seventh

ES: séptima, I: settima, F: septième, D: Sept, Septime, NL: septiem, DK: septim, S: septim, FI: septimi.

See also

Section 1.164 [interval], page 40.

1.273 sextolet

See also

Section 1.274 [sextuplet], page 68, Section 1.223 [note value], page 55.

1.274 sextuplet

ES: seisillo, I: sestina, F: sextolet, D: Sextole, NL: sextool, DK: sekstol, S: sextol, FI: sekstoli.

See also

Section 1.223 [note value], page 55.

1.275 shake

See also

Section 1.328 [trill], page 79.

1.276 sharp

ES: sostenido, I: diesis, F: dièse, D: Kreuz, NL: kruis, DK: kryds, S: korsförtecken, FI: korotusmerkki.

See also

Section 1.7 [accidental], page 2.

1.277 simile

ES: simile, similar, I: simile, F: simile, de façon identique, D: simile, gleichartig, NL: ?, DK: simile, S: ?, FI: samoin.

[Italian: 'in the same manner'] Performance direction: the music thus marked is to be played in the same manner (i.e., with the same articulations, dynamics, etc.) as the music that precedes it.

See also
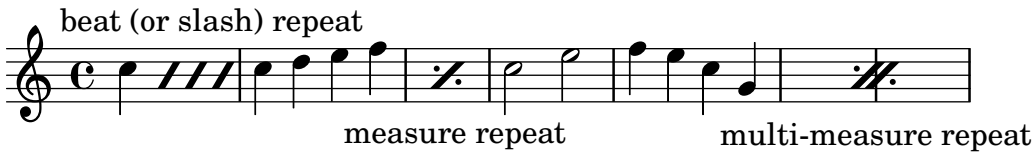
TODO: Where else could I refer the reader?

1.278 simile mark

ES: ?, I: ?, F: ?, D: Faulenzer (colloquial). NL: ?, DK: ?, S: ?, FI: ?.

Symbol to indicate a percent repeat, the repetition of a musical expression on a single staff, as opposed to the more usual definition of a repeat, which affects all parts. The musical expression can be anything from a single note or note pattern to one or more measures. There are other names for this symbol:

- slash mark, or slash repeat
- beat repeat, repeat-beat, or repeat-bar
- measure (or multi-measure) repeat



See also

Section 1.260 [repeat], page 64, OnMusic Dictionary (`https://dictionary.onmusic.org/terms/4804-repeat`).

1.279 simple meter

ES: compás simple, compás de subdivisión binaria, I: tempo semplice, F: mesure binaire, D: gerader Takt, Taktart mit zweizeitigen Taktteilen NL: ?, DK: lige takt, S: ?, FI: kaksijakoinen tahtiosoitus.

A meter in which the basic beat is subdivided in two: that is, a meter that does not include triplet subdivision of the beat.

See also

Section 1.66 [compound meter], page 17, Section 1.199 [meter], page 49.

1.280 sixteenth note

- UK: semiquaver
- ES: semicorchea
- I: semicroma
- F: double croche
- D: Sechzehntel, Sechzehntelnote
- NL: zestiende noot
- DK: sekstendedelsnode
- S: sextondelsnot
- FI: kuudestoistaosanuotti

See also

Section 1.223 [note value], page 55.

1.281 sixteenth rest

- UK: semiquaver rest
- ES: silencio de semicorchea
- I: pausa di semicroma
- F: quart de soupir
- D: Sechzehntelpause
- NL: zestiende rust
- DK: sekstendedelspause
- S: sextondelspaus
- FI: kuudestoistaosatauko

See also

Section 1.223 [note value], page 55.

1.282 sixth

ES: sexta, I: sesta, F: sixte, D: Sext, Sexte, NL: sext, DK: sekst, S: sext, FI: seksti.

See also

Section 1.164 [interval], page 40.

1.283 sixty-fourth note

- UK: hemidemisemiquaver
- ES: semifusa
- I: semibiscroma
- F: quadruple croche
- D: Vierundsechzigstel, Vierundsechzigstelnote
- NL: vierenzestigste noot
- DK: fireogtredsindstyvendedelsnode
- S: sextiofjärdedelsnot
- FI: kuudeskymmenesneljäsosanuotti

See also

Section 1.223 [note value], page 55.

1.284 sixty-fourth rest

- UK: hemidemisemiquaver rest
- ES: silencio de semifusa
- I: pausa di semibiscroma
- F: seizième de soupir
- D: Vierundsechzigstelpause
- NL: vierenzestigste rust
- DK: fireogtredsindstyvendedelspause
- S: sextiofjärdedelspaus
- FI: kuudeskymmenesneljäsosatauko

See also

Section 1.223 [note value], page 55.

1.285 slash repeat

See also

Section 1.234 [percent repeat], page 58.

1.286 slur

ES: ligadura de expresión, I: legatura (di portamento o espressiva), F: liaison, coulé, D: Bogen (Legatobogen, Phrasierungsbogen), NL: fraseringsboog, legatoboog, streekboog, DK: legatobue, fraseringsbue, S: båge, FI: kaari.

A slur above or below a group of notes indicates that they are to be played Section 1.175 [legato], page 43, e.g., with one stroke of the violin bow or with one breath in singing.

See also

No cross-references.

1.287 solmization

ES: solmisación, I: solmisazione, F: solmisation, D: Solmisation, NL: solmizatie, DK: solmisation, S: solmisation, FI: suhteelliset laulunimet.

General term for systems of designating the degrees of the *scale*, not by letters, but by syllables (*do* (*ut*), *re*, *mi*, *fa*, *sol*, *la*, *si* (*ti*)).

See also

Section 1.265 [scale], page 65, Section 1.266 [scale degree], page 66.

1.288 sonata

ES: sonata, I: sonata, F: sonate, D: Sonate, NL: sonate, DK: sonate, S: sonat, FI: sonaatti.

In its present-day meaning a sonata denotes an instrumental composition for piano or for some other instrument with piano accompaniment, which consists of three or four independent pieces, called movements.

See also

No cross-references.

1.289 sonata form

ES: forma sonata, I: forma sonata, F: [en] forme de sonate, D: Sonatenform, NL: hoofdvorm, sonatevorm, DK: sonateform, S: sonatform, FI: sonaattimuoto.

A form used frequently for single movements of the *sonata*, *symphony*, quartet, etc. A movement written in sonata form falls into three sections called *exposition*, *development* and *recapitulation*. In the exposition the composer introduces some musical ideas, consisting of a number of themes; in the development section the composer *develops* this material, and in the recapitulation the composer repeats the exposition, with certain modifications. The exposition contains a number of themes that fall into two groups, often called first and second subject. Other melodies occurring in each group are considered as continuations of these two. The second theme is in another key, normally in the key of the *dominant* if the *tonic* is *major*, and in the *relative key* if the tonic is *minor*.

See also

Section 1.96 [dominant], page 25, Section 1.186 [major], page 45, Section 1.206 [minor], page 52, Section 1.259 [relative key], page 64, Section 1.288 [sonata], page 71, Section 1.305 [symphony], page 74, Section 1.322 [tonic], page 78.

1.290 song texts

See also

Section 1.185 [lyrics], page 45.

1.291 soprano

ES: soprano, I: soprano, F: soprano, D: Sopran, NL: sopraan, DK: sopran, S: sopran, FI: sopraano, korkea naisääni.

The highest female voice.
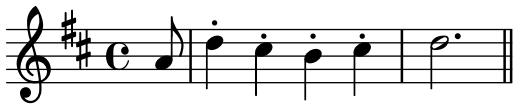
See also

No cross-references.

1.292 staccato

ES: picado, I: staccato, F: staccato, piqué, détaché, D: staccato, NL: staccato, DK: staccato, S: staccato, FI: staccato, lyhyesti, terävästi.

Playing the note(s) short. Staccato is indicated by a dot above or below the note head.
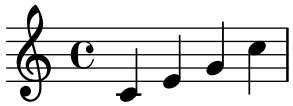


See also

No cross-references.

1.293 staff

UK: stave, ES: pentagrama, pauta, I: pentagramma, rigo (musicale), F: portée, D: Notensystem, Notenzeile, NL: (noten)balk, partij, DK: nodesystem, S: notsystem, FI: nuottiviivasto.

A staff (plural: staves) is a series of (normally five) horizontal lines upon and between which the musical notes are written, thus indicating (in connection with a Section 1.58 [clef], page 14) their pitch. Staves for Section 1.235 [percussion], page 58, instruments may have fewer lines.



See also

Section 1.308 [system], page 75.

1.294 staves
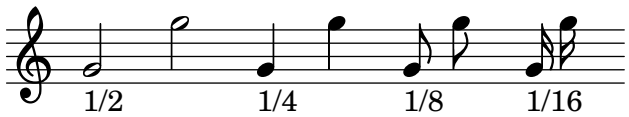
See also

Section 1.293 [staff], page 72.

1.295 stem

ES: plica, I: gamba, F: hampe, D: Hals, Notenhals, Stiel, NL: stok, DK: hals, S: skaft, FI: nuottipalkki.

Vertical line above or below a Section 1.221 [note head], page 55, shorter than a whole note.



See also

Section 1.36 [beam], page 9.

1.296 stringendo

ES: stringendo, acelerando, I: stringendo, F: stringendo, en accélérant, D: stringendo, NL: ?, DK: stringendo, accelerando, S: ?, FI: kiihdyttäen, nopeuttaen.

[Italian: 'pressing'] Pressing, urging, or hastening the time, as to a climax.

See also

Section 1.3 [accelerando], page 1.

1.297 strings

ES: arcos, cuerdas, I: archi, F: cordes, D: Streicher, NL: strijkers, DK: strygere, S: stråkar, FI: jouset.

A family of stringed musical instruments played with a bow. Strings commonly used in a symphony orchestra are violin, viola, violoncello, and double bass.

See also

No cross-references.

1.298 strong beat

ES: tiempo fuerte, I: tempo forte, F: temps fort, D: betonter Taktteil oder Taktschlag, NL: thesis, D: betonet taktslag, S: betonat taktslag, FI: tahdin vahva isku.

See also

Section 1.37 [beat], page 9, Section 1.4 [accent], page 2, Section 1.190 [measure], page 46, Section 1.262 [rhythm], page 65.

1.299 subdominant

ES: subdominante, I: sottodominante, F: sous-dominante, D: Subdominante, NL: subdominant, DK: subdominant, S: subdominant, FI: subdominantti, alidominantti.

The fourth *scale degree*.

See also

Section 1.143 [functional harmony], page 34, Section 1.266 [scale degree], page 66.

1.300 submediant

ES: submediante, I: sopradominante, F: sous-médiante, D: Submediante, NL: submediant, DK: Submediant, S: submediant, FI: alikeskisävel.

The sixth *scale degree*.

See also

Section 1.143 [functional harmony], page 34, Section 1.266 [scale degree], page 66, Section 1.303 [superdominant], page 74.

1.301 subtonic

ES: subtónica, I: sottotonica, F: sous-tonique, D: Subtonika, NL: subtonica, DK: Subtonika, S: subtonika, FI: subtoonika, alitoonika.

The seventh Section 1.266 [scale degree], page 66.

See also

Section 1.143 [functional harmony], page 34, Section 1.266 [scale degree], page 66.

1.302 sul G

ES: sobre la cuerda de Sol, I: sul Sol, F: sur la corde de sol, D: auf G, auf der G-Saite, NL: ?, DK: sul G, på G-strengen, S: ?, FI: G-kielellä.

Indicates that the indicated passage (or note) should be played on the G string.

See also

No cross-references.

1.303 superdominant

ES: superdominante, I: sopradominante, F: sus-dominante, D: Superdominante, NL: superdominant, DK: superdominant, S: superdominant, FI: ylidominantti.

The sixth Section 1.266 [scale degree], page 66. Equivalent to the submediant, q.v.

See also

Section 1.143 [functional harmony], page 34, Section 1.266 [scale degree], page 66, Section 1.300 [submediant], page 73.

1.304 supertonic

ES: supertónica, I: sopratonica, F: sus-tonique, D: Supertonika, NL: supertonica, DK: supertonika, S: supertonika, FI: ylitoonika.

The second Section 1.266 [scale degree], page 66.

See also

Section 1.143 [functional harmony], page 34, Section 1.266 [scale degree], page 66.

1.305 symphony

ES: sinfonía, I: sinfonia, F: symphonie, D: Sinfonie, Symphonie, NL: symfonie, DK: symfoni, S: symfoni, FI: sinfonia.

A symphony may be defined as a *sonata* for orchestra.
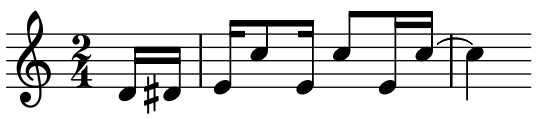
See also

Section 1.288 [sonata], page 71.

1.306 syncopation

ES: síncopa, I: sincope, F: syncope, D: Synkope, NL: syncope, DK: synkope, S: synkop, FI: synkooppi.

Any deliberate upsetting of the normal pulse of Section 1.199 [meter], page 49, Section 1.4 [accent], page 2, and Section 1.262 [rhythm], page 65. The occidental system of musical rhythm rests upon the grouping of equal beats into groups of two or three, with a regularly recurrent accent on the first beat of each group. Any deviation from this scheme is felt as a disturbance or contradiction between the underlaying (normal) pulse and the actual (abnormal) rhythm.



See also

No cross-references.

1.307 syntonic comma

ES: coma sintónica, coma de Dídimo, I: comma sintonico (o didimico), F: comma syntonique, D: syntonisches Komma, NL: syntonische komma, DK: syntonisk komma, S: syntoniskt komma, FI: syntoninen komma, terssien taajuusero luonnollisessa ja Pytagorisessa viritysjärjestelmässä.

Named after Ptolemy's syntonic diatonic genus. Originally, the difference by which the ditone exceeds the pure major third obtained by Pythagorean tuning: (9:8)^2 / (5:4) = 81:80, or 21.5 cents.[1]

Modern acoustics theory defines it as the interval by which four fifths exceed the sum of two octaves plus a major third: (3:2)^4 / ((2:1)^2 * (5:4)).

This comma is also known as the comma of Didymus, or didymic comma.

See also

Section 1.251 [Pythagorean comma], page 62.

1.308 system

ES: sistema, I: sistema, F: système, D: Notensystem, NL: systeem, DK: system, S: system, FI: nuottiviivasto.

One 'line' of music on the page, consisting of one or more staves grouped vertically. A line break is a switch to the next system.

For example, a piano music score often contains five to six systems per page (with normally two staves per system), while a full orchestral score usually contains only one or two systems per page.

See also

Section 1.293 [staff], page 72.

1.309 temperament

ES: temperamento, I: temperamento, F: tempérament, D: Stimmung, Temperatur, NL: stemming, temperatuur, DK: temperatur, S: temperatur, FI: viritysjärjestelmä.

Systems of tuning in which the intervals deviate from the acoustically pure intervals.

See also

Section 1.189 [meantone temperament], page 46, Section 1.121 [equal temperament], page 29.

1.310 tempo indication

ES: indicación de tempo, I: indicazione di tempo, F: indication de tempo, D: Zeitmaß, Tempobezeichnung, NL: tempo aanduiding, DK: tempobetegelse, S: tempobeteckning, FI: tempomerkintä.

The rate of speed of a composition or a section thereof, ranging from the slowest to the quickest, as is indicated by tempo marks as *largo*, *adagio*, *andante*, *allegro*, and *presto*.

See also

Section 1.8 [adagio], page 3, Section 1.12 [allegro], page 4, Section 1.19 [andante], page 5, Section 1.172 [largo], page 43, Section 1.249 [presto], page 61.

[1] Addition and subtraction of intervals are represented in the arithmetic expressions by multiplication and division, respectively.

1.311 tenor

ES: tenor, I: tenore, F: ténor, D: Tenor, NL: tenor, DK: tenor, S: tenor, FI: tenori, korkea miesääni.

The highest 'natural' male voice (apart from *countertenor*).

See also

Section 1.74 [countertenor], page 19.

1.312 tenth

ES: décima, I: decima, F: dixième, D: Dezim, Dezime, NL: deciem, DK: decim, S: decima, FI: desimi.

See also

Section 1.223 [note value], page 55.

1.313 tenuto

ES: subrayado (tenuto), I: tenuto, F: tenue, tenuto, D: gehalten, tenuto, NL: tenuto, DK: tenuto, S: tenuto, FI: viiva, tenuto.

An indication that a particular note should be held for the whole length, although this can vary depending on the composer and era.

See also

No cross-references.

1.314 third

ES: tercera, I: terza, F: tierce, D: Terz, Terze NL: terts, DK: terts, S: ters, FI: terssi.

See also

Section 1.164 [interval], page 40.

1.315 thirty-second note

- UK: demisemiquaver
- ES: fusa
- I: biscroma
- F: triple croche
- D: Zweiunddreißigstel, Zweiunddreißigstelnote
- NL: tweeendertigste (32e) noot
- DK: toogtredivtedelsnode
- S: trettiotvåondelsnot
- FI: kolmaskymmeneskahdesosanuotti

See also

Section 1.223 [note value], page 55.

1.316 thirty-second rest

- UK: demisemiquaver rest
- ES: silencio de fusa
- I: pausa di biscroma
- F: huitième de soupir
- D: Zweiunddreißigstelpause
- NL: tweeendertigste (32e) rust
- DK: toogtredivtedelspause
- S: trettiotvåondelspaus
- FI: kolmaskymmeneskahdesosatauko

See also

Section 1.223 [note value], page 55.

1.317 thorough bass
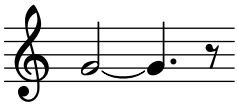
See also

Section 1.130 [figured bass], page 32.

1.318 tie

ES: ligadura de unión (o de prolongación), I: legatura (di valore), F: liaison (de tenue), D: Haltebogen, Bindebogen, NL: overbinding, bindingsboog, DK: bindebue, S: bindebåge, överbindning, FI: sitominen.

A curved line, identical in appearance with the Section 1.286 [slur], page 70, which connects two succesive notes of the same pitch, and which has the function of uniting them into a single sound (tone) equal to the combined durations.



1.319 time

See also

Section 1.199 [meter], page 49.

1.320 time signature

ES: indicación de compás, I: segni di tempo, F: métrique, chiffrage (chiffres indicateurs), indication de mesure, D: Taktangabe, Angabe der Taktart, NL: maatsoort, DK: taktangivelse, S: taktartssignatur, FI: tahtiosoitus.

The sign placed at the beginning of a composition to indicate its meter. It most often takes the form of a fraction, but a few signs derived from mensural notation and proportions are also employed.

See also

Section 1.196 [mensural notation], page 47, Section 1.197 [mensuration sign], page 48, Section 1.199 [meter], page 49.

1.321 tone

ES: tono, I: suono, F: ton, son, D: Ton, NL: toon, DK: tone, S: ton, FI: ääni.

A sound of definite pitch and duration, as distinct from *noise*. Tone is a primary building material of music.

See also

No cross-references.

1.322 tonic

ES: tónica, I: tonica, F: tonique, D: Tonika, NL: tonica, DK: tonika, S: tonika, FI: toonika.

The first *scale degree*.

See also

Section 1.143 [functional harmony], page 34, Section 1.266 [scale degree], page 66.

1.323 transposing instrument

ES: instrumento transpositor, I: strumento trasposítore, F: instrument transpositeur, D: transponierendes Instrument, NL: ?, DK: transponerende instrument, S: ?, FI: transponoitava soitin.

Instruments whose notated pitch is different from their sounded pitch. Except for those whose notated and sounding pitches differ by one or more octaves (to reduce the number of ledger lines needed), most such instruments are identified by the letter name of the pitch class of their fundamental. The pitch class is the note that *sounds* (disregarding the octave in which it sounds) when the instrument plays a notated C.

For example: when played on the B-flat clarinet, the note middle C *sounds* the B-flat one tone lower. If played on the A clarinet, the same written note sounds the A (one and half tones – a minor third – lower).

Not all transposing instruments include the pitch class in their name:

- Alto flute (in G)
- English horn (in F)
- Saxophones (in B-flat or E-flat)
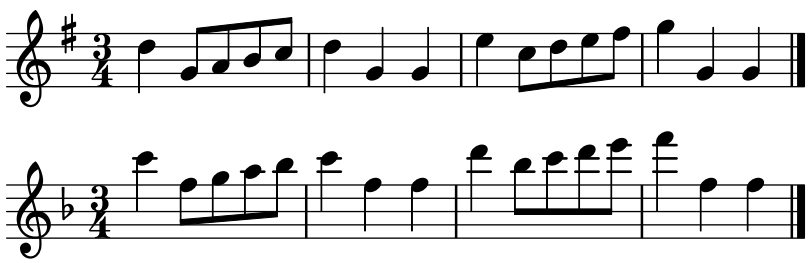
See also

Section 1.68 [concert pitch], page 17.

1.324 transposition

ES: transporte, transposición, I: trasposizione, F: transposition, D: Transposition, NL: transpositie, DK: transposition, S: transponering, FI: transponointi.

Shifting a melody up or down in pitch, while keeping the same relative pitches.



See also

No cross-references.

1.325 treble clef

ES: clave de sol en segunda, I: chiave di violino, F: clef de sol, D: Violinschlüssel, Sopranschlüssel, NL: viool sleutel, DK: diskantnøgle, S: diskantklav, FI: diskanttiavain.

See also
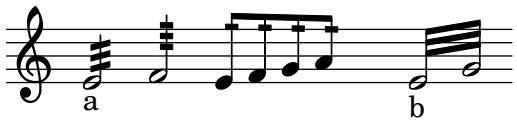
Section 1.145 [G clef], page 35.

1.326 tremolo

ES: trémolo, I: tremolo, F: trémolo, D: Tremolo, NL: tremolo, DK: tremolo, S: tremolo, FI: tremolo.

On stringed instruments:

1. The quick reiteration of the same tone, produced by a rapid up-and-down movement of the bow.
2. Or, the rapid alternation between two notes of a Section 1.53 [chord], page 13, usually in the distance of a third (Section 1.164 [interval], page 40).



See also

Section 1.297 [strings], page 73.

1.327 triad

ES: tríada, I: triade, F: triade, accord parfait, accord de trois sons, D: Dreiklang, NL: drieklank, DK: treklang, S: treklang, FI: kolmisointu.

See also

Section 1.53 [chord], page 13.

1.328 trill

ES: trino, I: trillo, F: trille, tremblement, battement (cadence), D: Triller, NL: triller, DK: trille, S: drill, FI: trilli.

See also

Section 1.229 [ornament], page 57.

1.329 triple meter

ES: compás ternario, I: tempo ternario, F: mesure ternaire, D: Dreiertakt, ungerader Takt, NL: driedelige maatsoort, DK: tredelt takt, S: tretakt, FI: kolmijakoinen.

See also

Section 1.199 [meter], page 49.

1.330 triplet

ES: tresillo, I: terzina, F: triolet, D: Triole, NL: triool, DK: triol, S: triol, FI: trioli.

See also

Section 1.223 [note value], page 55.

1.331 tritone

ES: tritono, I: tritono, F: triton, D: Tritonus, NL: tritoon, DK: tritonus, S: tritonus, FI: tritonus.

See also

Section 1.164 [interval], page 40.

1.332 tuning fork

ES: diapasón [de horquilla], I: diapason, corista, F: diapason, D: Stimmgabel, NL: stemvork, DK: stemmegaffel, S: stämgaffel, FI: viritysavain, äänirauta.

A two-pronged piece of steel used to indicate an absolute pitch, usually for *A* above middle C (440 cps/Hz), which is the international tuning standard. Tuning forks for other pitches are available.

See also

Section 1.205 [middle C], page 52.

1.333 tuplet

ES: grupo de valoración especial, I: gruppi irregolari, F: N-olet, D: N-tole, NL: Antimetrische figuur, DK: n-tol, irregulære nodeværdier, S: ?, FI: ?.

A non-standard subdivision of a beat or part of a beat, usually indicated with a bracket and a number indicating the number of subdivisions.

See also

Section 1.330 [triplet], page 80, Section 1.223 [note value], page 55.

1.334 turn

ES: grupeto (circular), I: gruppetto, F: grupetto, D: Doppelschlag, NL: dubbelslag, DK: dobbeltslag, S: dubbelslag, FI: korukuvio.

See also

Section 1.229 [ornament], page 57.

1.335 unison

ES: unísono, I: unisono, F: unisson, D: unisono, einstimmig, NL: unisono, DK: unison, S: unison, FI: unisono, yksiäänisesti.

Playing of the same notes or the same melody by various instruments (voices) or by the whole orchestra (choir), either at exactly the same pitch or in a different octave.

See also

No cross-references.

1.336 upbeat

ES: anacrusa, I: anacrusi, F: anacrouse, levée, D: Auftakt, NL: opmaat, DK: optakt, S: upptakt, FI: kohotahti.

See also

Section 1.17 [anacrusis], page 5.

1.337 voice

ES: voz, I: voce, F: voix, D: Stimme, NL: stem, DK: stemme, S: stämma, FI: ääni, lauluääni.

- Human voices:
  - Section 1.291 [soprano], page 71,
  - Section 1.204 [mezzo-soprano], page 52,
  - Section 1.71 [contralto], page 18,
  - Section 1.311 [tenor], page 76,
  - Section 1.32 [baritone], page 8,
  - Section 1.34 [bass], page 9,
- A melodic layer or part of a polyphonic composition.

See also

No cross-references.

1.338 volta

ES: vez, primera y segunda vez, I: volta, F: volta, fois, D: Volta-Klammer, Wiederholungsklammer, NL: ?, DK: volte, S: ?, FI: yksi kertauksen maaleista.

[Italian: 'time' (instance, not duration)] An ending, such as a first or second ending. LilyPond extends this idea to any number, and allows any text (not just a number) – to serve as the *volta* text.

See also

No cross-references.

1.339 vowel transition

ES: ?, I: ?, F: ?, D: Vokalwechsel, NL: ?, DK: vokalskifte, S: ?, FI: ?.

A gradual change of vowel or sustained consonant, usually indicated by an arrow between syllables (see Gould, pp. 452–453).

See also

No cross-references.

1.340 weak beat

ES: tiempo débil, I: tempo debole, arsi, F: temps faible, D: unbetonter Taktteil oder Taktschlag, NL: arsis, DK: ubetonet taktslag, S: obetonat taktslag, FI: tahdin heikko isku.

See also

Section 1.37 [beat], page 9, Section 1.190 [measure], page 46, Section 1.262 [rhythm], page 65.

1.341 whole note

- UK: semibreve
- ES: redonda
- I: semibreve
- F: ronde
- D: Ganze, ganze Note
- NL: hele noot
- DK: helnode
- S: helnot
- FI: kokonuotti

See also

Section 1.223 [note value], page 55.

1.342 whole rest

- UK: semibreve rest
- ES: silencio de redonda
- I: pausa di semibreve
- F: pause
- D: ganze Pause, ganztaktige Pause
- NL: hele rust
- DK: helnodespause
- S: helpaus
- FI: kokotauko

See also

Section 1.223 [note value], page 55.

1.343 whole tone

ES: tono (entero), I: tono intero, F: ton entier, D: Ganzton, NL: hele toon, DK: heltone, S: helton, FI: kokoaskel.

The interval of a major second. The interval between two tones on the piano keyboard with exactly one key between them – including black and white keys – is a whole tone.

See also

Section 1.164 [interval], page 40.

1.344 woodwind

ES: maderas, I: legni, F: les bois, D: Holzbläser, NL: houtblazers, DK træblæsere, S: träblåsare, FI: puupuhaltimet.

A family of blown wooden musical instruments. Today some of these instruments are actually made from metal. The woodwind instruments commonly used in a symphony orchestra are flute, oboe, clarinet, saxophone, and bassoon.

See also

No cross-references.

2 Duration names notes and rests

	note name	rest name	note name	rest name
US	long	long rest	breve	breve rest
UK	longa	longa rest	breve	breve rest
ES	longa	silencio de longa	cuadrada	silencio de cuadrada
IT	longa	pausa di longa	breve	pausa di breve
FR	longa	quadruple-pause	brève	double-pause
DE	Longa	Longa-Pause	Brevis	Brevis-Pause
NL	longa	longa rust	brevis	brevis rust
DK	longa	longanodespause	brevis	brevis(nodes)pause
SE	longa	longapaus	brevis	brevispaus
FI	longa-nuotti	longa-tauko	brevis-nuotti, kaksoiskokonuotti	brevis-tauko, kaksoiskokotauko

	note name	rest name	note name	rest name
US	whole note	whole rest	half note	half rest
UK	semibreve	semibreve rest	minim	minim rest
ES	redonda	silencio de redonda	blanca	silencio de blanca
IT	semibreve	pause di semibreve	minima	pausa di minima
FR	ronde	pause	blanche	demi-pause
DE	ganze Note	ganze Pause	halbe Note	halbe Pause
NL	hele noot	hele rust	halve noot	halve rust
DK	helnode	helnodespause	halvnode	halvnodespause
SE	helnot	helpaus	halvnot	halvpaus
FI	kokonuotti	kokotauko	puolinuotti	puolitauko

	note name	rest name	note name	rest name
US	quarter note	quarter rest	eighth note	eighth rest
UK	crotchet	crotchet rest	quaver	quaver rest
ES	negra	silencio de negra	corchea	silencio de corchea
IT	semiminima, nera	pausa di semiminima, pausa di nera	croma	pausa di croma
FR	noire	soupir*	croche*	demi-soupir
DE	Viertelnote	Viertelpause	Achtelnote	Achtelpause
NL	kwartnoot	kwartrust	achtste noot	achtste rust
DK	fjerdedelsnode	fjerdedelspause	ottendedelsnode	ottendedelspause
SE	fjärdedelsnot	fjärdedelspaus	åttondelsnot	åttondelspaus
FI	neljäsosanuotti	neljäsosatauko	kahdeksasosanuotti	kahdeksasosatauko

* About the French naming system: *croche* refers to the note's 'hook'. Therefore, from the eighth note on, the note names mean 'hook', 'doubled hook', 'trebled hook', and so on.

The rest names are based on the *soupir*, or quarter rest. Subsequent rests are expressed as fractions thereof: half a *soupir*, a quarter of a *soupir*, and so on.

Each of the following tables contains one type of note and its matching rest, with abbreviations that apply to both notes and rests. Just switch the part that means 'note' with the part that means 'rest', for example:

- English: 16th **note**, 16th **rest**
- German: 32tel-**Note**, 32tel-**Pause**
- Finnish: 64-osa**nuotti**, 64-osa**tauko**

Editor's note: I put a dash '-' when I could not find a language-specific abbreviation for a duration name. If you know of one that I missed, please send it this information to 'lilypond-user' e-mail list.

	Note name	**Rest name**	**Abbr.**
US	sixteenth note	sixteenth rest	16th note
UK	semiquaver	semiquaver rest	-
ES	semicorchea	silencio de semicorchea	-
IT	semicroma	pausa di semicroma	-
FR	double croche	quart de soupir	-
DE	Sechzehntelnote	Sechzehntelpause	16tel-Note
NL	zestiende noot	zestiende rust	16e noot
DK	sekstendedelsnode	sekstendedelspause	-
SE	sextondelsnot	sextondelspaus	-
FI	kuudestoistaosanuotti	kuudestoistaosatauko	16-osanuotti

	Note name	**Rest name**	**Abbr.**
US	thirty-second note	thirty-second rest	32nd note
UK	demisemiquaver	demisemiquaver rest	-
ES	fusa	silencio de fusa	-
IT	biscroma	pausa di biscroma	-
FR	triple croche	huitième de soupir	-
DE	Zweiunddreißigstelnote	Zweiunddreißigstelpause	32tel-Note
NL	tweeendertigste noot	tweeendertigste rust	32e noot
DK	toogtredivtedelsnode	toogtredivtedelspause	-
SE	trettiotvåondelsnot	trettiotvåondelspaus	-
FI	kolmaskymmeneskahdesosanuotti	kolmaskymmeneskahdesosatauko	32-osanuotti

	Note name	**Rest name**	**Abbr.**
US	sixty-fourth note	sixty-fourth rest	64th note
UK	hemidemisemiquaver	hemidemisemiquaver rest	-
ES	semifusa	silencio de semifusa	-
IT	semibiscroma	pausa di semibiscroma	-
FR	quadruple croche	seizième de soupir	-
DE	Vierundsechzigstelnote	Vierundsechzigstelpause	64tel-Note
NL	vierenzestigste noot	vierenzestigste rust	64e noot
DK	fireogtredsindstyvendedelsnode	fireogtredsindstyvendedelspause	-
SE	sextiofjärdedelsnot	sextiofjärdedelspaus	-
FI	kuudeskymmenesneljäsosanuotti	kuudeskymmenesneljäsosatauko	64-osanuotti

	Note name	**Rest name**	**Abbr.**
US	one-hundred-twenty-eighth note	one-hundred-twenty-eighth rest	128th note
UK	semihemidemisemiquaver	semihemidemisemiquaver rest	-
ES	garrapatea	silencio de garrapatea	-
IT	fusa	pausa di fusa	-
FR	quintuple croche	trente-deuxième de soupir	-
DE	Hundertachtundzwanzigstelnote	Hundertachtundzwanzigstelpause	128tel-Note
NL	honderdachtentwintigste noot	honderdachtentwintigste rust	128e noot
DK	hundredeotteogtyvendedelsnode	hundredeotteogtyvendedelspause	-
SE	hundratjugoåttondelsnot	hundratjugoåttondelspaus	-
FI	sadaskahdeskymmenes-kahdeksasosanuotti	sadaskahdeskymmenes-kahdeksasosatauko	128-osanuotti

	Note name	Rest name	Abbr.
US	two-hundred-fifty-sixth note	two-hundred-fifty-sixth rest	256th note
UK	demisemihemidemisemiquaver	demisemihemidemisemiquaver rest	-
ES	semigarrapatea	silencio de semigarrapatea	-
IT	semifusa	pausa di semifusa	-
FR	sextuple croche	soixante-quatrième de soupir	-
DE	Zweihundertsechsundfünfzigstel-note	Zweihundert-sechsundfünfzigstelpause	256tel-Note
NL	tweehonderdzesenvijftigste noot	tweehonderdzesenvijftigste rust	256e noot
DK	tohundredeseksog-halvtredsendedelsnode	tohundredeseksog-halvtredsendedelspause	-
SE	tvåhundrafemtiosjättedelsnot	tvåhundrafemtiosjättedelspaus	-
FI	kahdessadasviideskymmenes-kuudesosanuotti	kahdessadasviideskymmenes-kuudesosatauko	256-osanuotti

See also

Section 1.196 [mensural notation], page 47.

3 Pitch names

EN	**ES**	**I**	**F**	**D**	**NL**	**DK**	**S**	**FI**
c	do	do	ut	C	c	c	c	c
c-sharp	do sostenido	do diesis	ut dièse	Cis	cis	cis	ciss	cis
d-flat	re bemol	re bemolle	ré bémol	Des	des	des	dess	des
d	re	re	ré	D	d	d	d	d
d-sharp	re sostenido	re diesis	re dièse	Dis	dis	dis	diss	dis
e-flat	mi bemol	mi bemolle	mi bémol	Es	es	es	ess	es
e	mi	mi	mi	E	e	e	e	e
f-flat = e	fa bemol	fa bemolle	fa bémol	Fes	fes	fes	fess	fes
f	fa	fa	fa	F	f	f	f	f
e-sharp = f	mi sostenido	mi diesis	mi dièse	Eis	eis	eis	eiss	eis
f-sharp	fa sostenido	fa diesis	fa dièse	Fis	fis	fis	fiss	fis
g-flat	sol bemol	sol bemolle	sol bémol	Ges	ges	ges	gess	ges
g	sol	sol	sol	G	g	g	g	g
g-sharp	sol sostenido	sol diesis	sol dièse	Gis	gis	gis	giss	gis
a-flat	la bemol	la bemolle	la bémol	As	as	as	ass	as
a	la	la	la	A	a	a	a	a
a-sharp	la sostenido	la diesis	la dièse	Ais	ais	ais	aiss	ais
b-flat	si bemol	si bemolle	si bémol	B	bes	b	b	b
b	si	si	si	H	b	h	h	h
c-flat = b	do bemol	do bemolle	ut bémol	Ces	ces	ces	cess	ces
b-sharp = c	si sostenido	si diesis	si dièse	His	bis	his	hiss	his

4 Non-Western terms A-Z

4.1 bayati

This is a stub for `bayati`.

See also

Notation Reference: Section “Arabic key signatures” in *Notation Reference*.

4.2 iraq

This is a stub for `iraq`.

See also

Notation Reference: Section “Arabic key signatures” in *Notation Reference*.

4.3 kurd

This is a stub for `kurd`.

See also

Notation Reference: Section “Arabic key signatures” in *Notation Reference*.

4.4 makam

This is a stub for `makam`.

See also

Notation Reference: Section “Turkish classical music” in *Notation Reference*.

4.5 makamlar

This is a stub for `makamlar`.

See also

Notation Reference: Section “Turkish classical music” in *Notation Reference*.

4.6 maqam

This is a stub for `maqam`.

See also

Notation Reference: Section “Arabic music” in *Notation Reference*, Section “Arabic key signatures” in *Notation Reference*.

4.7 rast

This is a stub for `rast`.

See also

Notation Reference: Section “Arabic key signatures” in *Notation Reference*.

4.8 semai

This is a stub for `semai`.

See also

Notation Reference: Section “Arabic key signatures” in *Notation Reference*.

4.9 sikah

This is a stub for `sikah`.

See also

Notation Reference: Section “Arabic key signatures” in *Notation Reference*.

4.10 taqasim

This is a stub for `taqasim`.

See also

Notation Reference: Section “Arabic key signatures” in *Notation Reference*.

Appendix A Literature used

- Apel, Willi, ed. *The Harvard Dictionary of Music*. Cambridge: Belknap Press (Harvard University Press), 1944.
- Krohn, Felix. *Lyhyt musiikkioppi*. Porvoo, Helsinki, Finland: WSOY, 1976.
- Leuchtmann, Horst, ed. *Polyglottes Wörterbuch der musikalischen Terminologie*. Kassel, 1980.
- Hornby, Albert Sydney. *Oxford Advanced Learner's Dictionary of Current English*, 3rd ed. London: Oxford University Press, 1974.
- Porter, Noah. *Webster's Revised Unabridged Dictionary*. Springfield, Massachusetts: G. & C. Merriam Company, 1913.
- Randall, Don, ed. *The New Harvard Dictionary of Music*. Cambridge: Belknap Press (Harvard University Press), 1986.
- Riemann, Hugo. *Musik-lexicon*. Berlin, 1929.

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