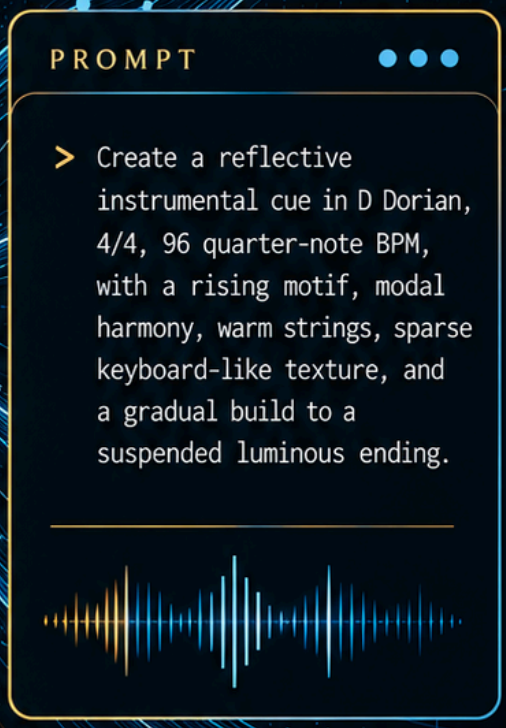
THE COMPOSER'S PROMPT

Music Theory and Harmony for Computational Music Prompting





JOE NASR

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THE COMPOSER'S PROMPT

Governing learning principle

Every concept follows name → construct → hear/recognize → apply → verify. This book explains musical reasoning, notation, composition, and evidence-based review. The companion Interactive Lab offers practical exercises for every chapter. Written chord symbols and verbal prompts state intentions, not guarantees about generated audio. All examples use Western pitch naming and notation.

https://thecomposersprompt-lab.vercel.app/

CHAPTER 1: THE COMPOSER'S NEW INSTRUMENT

Beginner checkpoint: hearing, representing, and choosing

A **pitch** is a perceived highness or lowness; a **note** is a musical event or its written symbol. A note may also have a duration, loudness, articulation, and timbre. **Timbre** is the quality that helps us distinguish piano from guitar when they play the same pitch. **Register** is where a pitch lies in the low-to-high range of an instrument. **Dynamics** means relative loudness and its changes. These are separate choices: a soft high piano note does not become a low note, and a bright timbre is not necessarily a major key.

What the reader needs to do: Describe one imagined event four ways: its pitch or register (middle C), its duration (one quarter note), its sound source (piano), and its dynamics (quiet). A generation prompt can request those properties, but the written request is not the same as the sounding result.

1.1 Score, prompt, and musical result

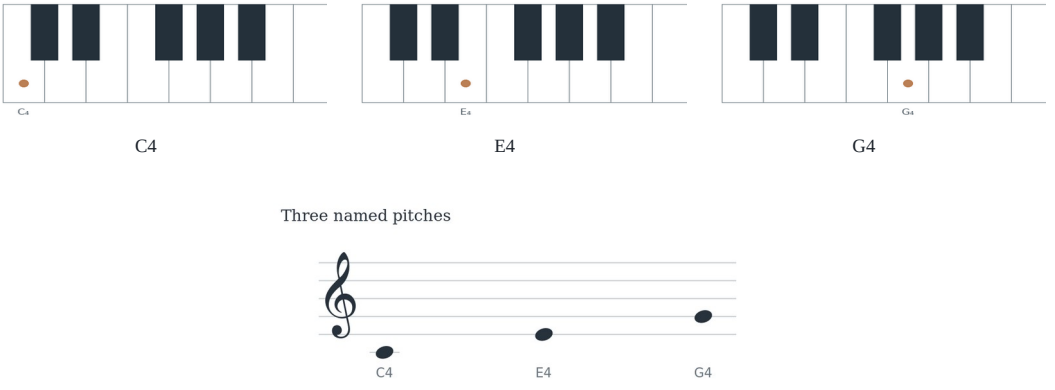


FIGURE 01 · Specified pitches and register; duration is not supplied.

A score communicates musical information through symbols that trained performers interpret: pitches, rhythms, articulation, dynamics, and sometimes instrumentation. A prompt communicates musical intentions in words or structured fields. A text-to-audio model may use those instructions to generate audio, but is not guaranteed to realize each instruction precisely.

Neither medium replaces the other. A notation-based score may fix an exact melody; a generative prompt may emphasize style, texture, or a musical constraint. The composer's work includes deciding what to specify precisely and what to leave open.

Illustration: C4–E4–G4 means three explicitly identified pitches. “Warm major chord on piano” names an intended sonority but not its voicing or duration. If C–E–G must be audible, provide notation/MIDI where a particular tool permits it and confirm the result by listening or transcription.

1.2 A practical hierarchy

1. **Musical intention:** What should listeners hear change?
2. **Musical construction:** Which pitches, rhythms, chords, phrases, or textures produce it?
3. **Representation:** Score, lead sheet, MIDI, prose, or platform controls.
4. **Realization:** A performance or generated recording.
5. **Verification:** Compare actual sound with intention.

A useful prompt names musical goals clearly without pretending that every generation system parses chord symbols or BPM equally well.

1.3 A score is not a prompt

A conventionally notated score communicates explicit pitch and rhythmic events, but even detailed scores leave decisions about phrasing, timing, balance and timbre to performers. A text-to-audio prompt is typically less determinate. That difference is a matter of **representational precision**, not a ranking of musical value. A score does not have only one possible performance, and a prompt is not a replacement for notation.

Simple comparison: C4–E4–G4 specifies pitch and register but not duration. C major, soft piano names a harmony and texture but leaves pitches' registers, positions and durations open. C4 (quarter)–E4 (quarter)–G4 (half) adds an explicit one-bar rhythm in 4/4. Use the representation that can carry the detail the task requires.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

A pitch is perceived highness or lowness; register locates it within a range. Duration, timbre, and dynamics describe different aspects of a musical event. A score, a verbal prompt, and sounding audio are distinct representations.

2 · FROM THEORY TO PROMPTING

Turn the four properties of one musical event into separate instructions. Describe what should sound rather than assuming the generator reads a score.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create a short, quiet instrumental passage for solo piano. Begin
with a note in the middle register, sustain it briefly, then move
to a higher note. Keep the sound soft and the texture sparse.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

Sound source — "solo piano" names timbre or instrumentation, not pitch.

Register — "middle register" and "higher note" request relative placement, not exact written notes.

Duration — "sustain it briefly" gives a duration preference, not an exact notated value.

Dynamics and texture — "soft" requests low dynamics; "sparse" asks for few simultaneous events.

4 · GUIDED VARIATIONS

A. Change only the timbre from piano to guitar; describe which property should remain unchanged.

B. Keep the piano, but change the register from middle to low and the dynamics from soft to loud.

C. Write two versions: one describes three pitches C4–E4–G4 in prose; the other uses a score or MIDI representation if your chosen application supports it. Compare their precision.

5 · YOUR TURN

Write a four-sentence prompt stating sound source, register, dynamics and the direction of pitch motion. Underline which parts are objectively inspectable.

6 · LISTEN, EVALUATE & REVISE

Listen for instrument family, overall register, quietness and relative pitch rise. Do not claim that the exact notes or durations occurred unless an audio transcription or symbolic source confirms them.

Model interpretation is not guaranteed. Verify the generated musical evidence independently.

CHAPTER 2: WHY THE MACHINE NEEDS YOUR THEORY

Beginner checkpoint: the same chord can mean different things

A **tonic** is the central note or harmony heard as home. A **chord root** names a chord, even when that chord is not the tonic. In major/minor functional harmony, a **dominant** typically directs expectation toward the tonic; a **secondary dominant** directs that expectation temporarily toward a non-tonic harmony. These are jobs in a tonal context, not labels that can be read from chord symbols alone.

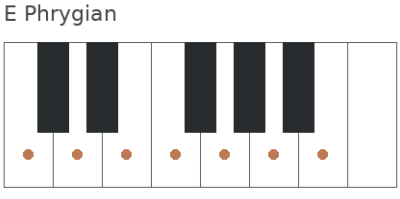
In C major, G7 → C is V7 → I: primary dominant to tonic. A7 → Dm is V7/ii → ii: A7 creates a local pull toward D minor. These patterns illustrate the distinction before the more detailed theory of Chapter 16. **Check:** A7 contains C♯; that note is a semitone below D. G7 contains B; that note is a semitone below C.

2.1 Two distinct AI tasks

Symbolic analysis: A language model interprets written material, such as chords, Roman numerals, and prose instructions. An answer may be plausible yet theoretically incorrect.

Audio generation: A music model produces sound from text and, on some systems, additional musical input. Accurate text analysis by one system does **not** prove accurate audio generation by another.

A claim such as "the model followed E Phrygian" requires an audio check: E should function as tonal center and F natural should appear as the characteristic lowered second. Merely entering those words is not evidence.



2.2 A minor: a first function check

Am–Dm–E7–Am in A minor is **i–iv–V7–i**. E7 = E–G♯–B–D: G♯ is the raised leading tone directed toward A. E7 is the **primary dominant** in A minor, not a secondary dominant.

By contrast, A7–Dm in A minor is **V7/iv–iv**. A7 = A–C♯–E–G; C♯ supplies an applied leading tone directed toward D. In C major, the same A7–Dm event is **V7/ii–ii**. The Roman numeral depends on the governing key.

2.3 Judge the audio, not the promise

Record separately (a) what was requested, (b) what was actually heard, and (c) what has been independently transcribed. Do not attribute an error to a vague prompt automatically: the model may simply fail to realize a clear instruction.

2.4 A worked analysis with a checked answer



FIGURE 02 · V7–I is a harmonic relation; cadence requires phrase context.

Given: Am | Dm | E7 | Am with A minor established as tonic. The chord tones are A–C–E, D–F–A, E–G♯–B–D and A–C–E. Their Roman numerals are **i–iv–V7–i**. G♯ is the leading tone of A and supports the dominant pull. Because the progression is only a chord list, call the last V7–i a **possible authentic cadence**, not a verified phrase-ending event.

Error check: An analysis identifying E7 as V7/iv is wrong here: the dominant of D minor is A or A7, not E7. Correctly analyzing a chord means naming both its notes and the tonic toward which it acts.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

A tonic acts as a tonal home; a chord root need not be the tonic. Dominant function depends on context. In A minor, E7–Am is V7–i; the same chord name can have a different function in another key. Text analysis and audio generation must be checked separately.

2 · FROM THEORY TO PROMPTING

Name the tonal center and the exact chord order. Ask for a functional explanation separately from asking an audio generator to realize the chords.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create a short instrumental passage with A minor clearly
established as the tonal center. Present the chord sequence Am–Dm–
E7–Am, allowing the E7 harmony to lead toward the return to A
minor. Keep the harmonic changes easy to hear.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"A minor ... tonal center" — Distinguishes the home harmony from the root of an individual chord.

"Am–Dm–E7–Am" — Names the ordered written harmonic target: i–iv–V7–i in A minor.

"E7 ... lead toward ... A minor" — Describes dominant resolution; E7 contains G♯ as a leading tone toward A.

"easy to hear" — Requests perceptible changes without claiming an exact audio result.

4 · GUIDED VARIATIONS

A. Use G7–C in a C-major setting and identify the primary dominant and tonic.

B. Compare E7–Am in A minor with A7–Dm in A minor. Explain why only the latter is an applied dominant of iv.

C. Ask a text-analysis model to spell the chords in Am–Dm–E7–Am; verify the presence of G♯ before attempting sound generation.

5 · YOUR TURN

Write a prompt for a four-chord progression with a specified tonic. In a separate sentence, explain why the final two chords may suggest, but do not by themselves prove, a cadence.

6 · LISTEN, EVALUATE & REVISE

Record three columns: requested chord order, what you heard, and what you verified by transcription. A chord list alone cannot establish a phrase-ending cadence.

CHAPTER 3: FOUR STRATEGIES FOR PROMPTING THEORY

Beginner checkpoint: what an AI exercise can and cannot establish

Task A – a text-analysis exercise: Supply the written chords C | F | G7 | C, state that C major is the tonal center, and ask for note spellings and Roman numerals. A defensible answer is I | IV | V7 | I.

Task B – a sound-generation exercise: Request the same sequence in a music generator, then compare the audio with the written target. The correctness of Task A does not certify Task B. The companion Interactive Lab supports chapter-by-chapter listening and comparison exercises.

The following strategies are mainly for **language-model analysis and instruction**, not verified controls over generated audio.

3.1 Examples in context

Provide a definition, a checked example, and a new problem. Example: "In C major, A7–Dm is V7/ii–ii and D7–G is V7/V–V. Analyze C–E7–Am–D7–G–C." Correct targets are **E7 = V7/vi** and **D7 = V7/V**; G is the primary V, not a secondary dominant.

3.2 A transparent analytical procedure

Ask the model to report: key evidence, chord spellings, Roman numerals, evidence of tonicization/modulation, and possible cadence. Check each step against actual pitches and phrase context. A list of chord names alone cannot establish where a phrase cadence occurs.

Modulation example: C–F–Am | D7–G: Am is vi in C major and ii in G major, so it can act as a pivot chord. D7–G is V7–I in G major. If the phrase continues to emphasize G, this may confirm a modulation; the chord list alone does not prove one.

3.3 Analytical perspectives

A functional analysis asks which harmonies establish departure and arrival. A jazz chord-scale analysis may emphasize extensions and substitutions. A voice-leading analysis traces individual lines. The perspectives answer different questions; they are not interchangeable and should not be treated as automatically equally appropriate.

3.4 Research → analyze → compose → verify

Research claims need sources. Musical analysis needs correct notes. A new composition needs a specified musical construction. Verification requires audio, notation, or both. Role assignments and detailed instructions can improve communication, but cannot confer perfect pitch or guarantee theoretical accuracy.

3.5 A reliable test for explanations

Ask an analysis model for **verifiable intermediate claims** rather than attributing human understanding to it. A useful form is: "Spell each chord, establish the working tonic, label the Roman numerals, explain the chord that creates a leading tone, and distinguish any potential cadence from a demonstrated phrase ending." Then check the answer independently. This is an auditable *reported analysis*, not access to the model's private reasoning.

Controlled comparison: Test the same musical question once with only "analyze this," and again with explicit tasks and one correct worked example. Grade correctness using an external answer key. Better instructions can improve answers, but do not establish a universal performance percentage for music-generation software.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Examples and explicit analytical steps help formulate testable questions. Separate research, written harmonic analysis, composition, and audio verification. Roman numerals, pitch spellings, and phrase claims require independent checking.

2 · FROM THEORY TO PROMPTING

Use a text-analysis prompt to diagnose a written progression before adapting its verified conclusions to a composition prompt. Do not confuse an analysis assistant with an audio generator.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Analyze the written progression C | F | G7 | C with C major as the
established tonal center. Spell the notes of each chord, give the
Roman numerals, explain the role of G7, and distinguish a possible
dominant-to-tonic cadence from a proven phrase ending. Report what
additional phrase evidence would be needed.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"C major ... tonal center" — Supplies the governing key needed to assign functions.

"Spell the notes" — Makes the analysis checkable from pitch content.

"Roman numerals" — Requests I | IV | V7 | I in this context.

"possible ... not proven" — Prevents a chord list from being misrepresented as a documented phrase-ending cadence.

4 · GUIDED VARIATIONS

A. Repeat the analysis with Am | Dm | E7 | Am in A minor, checking the notes of E7.

B. Request only "analyze these chords," then compare that answer with the annotated example against a written answer key.

C. After verifying I–IV–V7–I, ask a music generator for a short passage using that sequence. Keep the written target and the actual audio observations separate.

5 · YOUR TURN

Write a new analysis request containing a key, four chord symbols and three specific evidence checks. Provide your own expected Roman numerals before consulting the model.

6 · LISTEN, EVALUATE & REVISE

Check notes and numerals independently. For audio, do not transfer confidence from a correct text answer to an unexamined generated recording.

CHAPTER 3.5: THE PROMPT ARCHITECTURE

Beginner checkpoint: what a musical specification actually controls

Start with a **brief** ("a restrained instrumental idea"), then name **musical facts** (C major, 4/4, quarter note = 96 BPM, one chord per bar), then **arrangement preferences** (piano and bass). Keep these distinct from the product-specific wording used to submit them. The same musical target may need very different encoding in notation software, a text-to-audio system, or an instrument-conditioned model.

A **constraint** describes what should be kept fixed; a **test** explains how we would know it was kept fixed. Example: "one chord per bar" is the constraint; a bar-by-bar transcription is one possible test. A listening impression such as "it sounds warm" cannot, by itself, verify which notes were played.

General planning fields: style/context; key or tonal center; tempo and meter; musical material (motif/chord plan); instrumentation and texture; section plan; exclusions; evidence to be checked. This is a **planning scaffold**, not a documented universal parser or ranking algorithm. There is no established fixed rule that every music model weights genre first and music theory fourth.

Example request: "Instrumental indie-pop, C major, 96 BPM, 4/4, acoustic guitar and restrained piano, eight bars, one chord per bar: C | G | Am | F | C | F | G | C. Keep bass clear; end with a stable C-major arrival."

This prompt is a proposed target. Its exact chord and bar adherence must be verified from the rendered result. Bracketed chord symbols in a lyrics field can be tested where supported, but should not be described as a guaranteed control syntax.

Tempo is not emotion. 96 BPM identifies beats per minute only when the beat unit is defined; perceived energy also depends on subdivision, harmonic rhythm, articulation, density, and half-time/double-time feel. A 6/8 jig at 108 dotted-quarter beats per minute is not directly equivalent to 108 quarter-note beats per minute.

Musical fields and interface fields

Keep three things separate in every example: **(a) musical target** (key, chord, tempo), **(b) interface placement** (a particular product's text box, reference clip, or control), and **(c) evidence** (listening, notation, MIDI, transcription). A bracketed [G7] is a conventional chord-like text cue in some workflows, not a universally enforced command. A negative preference such as "no drums" is likewise a request whose effect must be heard.

BPM comparison: 96 quarter-note beats per minute in 4/4 is not equivalent in perceived motion to a 96 dotted-quarter-note beat in 6/8. Printed examples must specify the beat unit when the distinction matters. Genre does not define a universal fixed BPM range.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

A musical specification distinguishes musical target, interface placement, and verification evidence. Fields may include key, meter, tempo with beat unit, chord plan, instrumentation and texture. A request is not a guarantee that an audio model will honor every item.

2 · FROM THEORY TO PROMPTING

Assemble a compact specification with separate fields, then translate it into prose suitable for the chosen tool. Keep the original target unchanged when comparing generators.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create an eight-bar instrumental passage in C major, 4/4 meter, at
96 quarter-note beats per minute. Use piano and bass with a
restrained texture. Aim for one chord per bar in this order: C | G
| Am | F | C | F | G | C. End with a stable C-major arrival.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"eight-bar" — Defines the intended span of the musical target.

"4/4 ... 96 quarter-note beats per minute" — Names both meter and tempo beat unit; BPM alone is not a mood label.

"one chord per bar" — Expresses intended harmonic rhythm, requiring a bar-by-bar check.

"C | G | Am | F | C | F | G | C" — Gives the precise eight-position chord plan.

"piano and bass ... restrained" — Specifies instrumentation and textural preference.

4 · GUIDED VARIATIONS

A. Keep every musical field fixed but ask for a different sound source; list which changes are permitted.

B. Keep the chords and meter but change the tempo to 120 quarter-note BPM. Compare speed independently of perceived energy.

C. Translate the target into a structured list of fields rather than prose; compare the two representations without assuming either is universally parsed.

5 · YOUR TURN

Create a specification card with fields for key, meter, beat unit and BPM, harmonic rhythm, eight-bar chord plan, instruments and what to verify. Then write one clean model-facing prompt.

6 · LISTEN, EVALUATE & REVISE

Check bar count, chord sequence, tempo interpretation and instrument presence separately. Mark each as heard, transcribed/verified, contradicted or uncertain; record the tool and settings used.

CHAPTER 4: THE EMOTIONAL GRAMMAR OF INTERVALS

Beginner checkpoint: count first, interpret second

In twelve-tone equal temperament, the distance from one piano key to its immediate neighbor is **one semitone**, whether the next key is black or white. Two semitones make a whole tone. C to D is two semitones; E to F is one. Interval names additionally depend on letter spelling: C to F♯ is an augmented fourth, while C to G♭ is a diminished fifth. Both span six equal-tempered semitones, but their written identities and tonal uses differ.

To identify an interval: (1) count letter names inclusively for its numerical name, (2) count semitones for its quality, (3) ask whether notes sound together or in succession, and (4) consider the harmony. Descriptive language comes last, not first.

4.1 Construct the interval before describing it

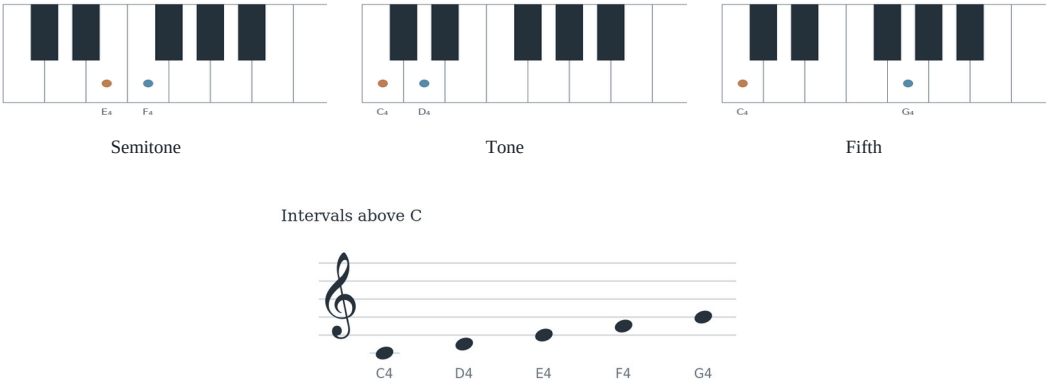


FIGURE 03 · Semitone distances from C: 0, 2, 4, 5, 7.

An interval is the distance between two pitches. A **melodic interval** is heard successively; a **harmonic interval** is heard simultaneously. Both are named by generic number and quality. Their expressive effects depend on register, timbre, tuning, harmony, and style.

Interval	Semitones	From C	Musical observation
minor second	1	C–D♭	Close melodic motion; simultaneous versions may create roughness
major second	2	C–D	A step; often used in passing motion
minor third	3	C–E♭	Minor-triad component
major third	4	C–E	Major-triad component
perfect fourth	5	C–F	Consonant or dissonant depending on bass and style
tritone	6	C–F♯	May create directed harmonic tension in a dominant chord
perfect fifth	7	C–G	Common stable structural interval

Interval	Semitones	From C	Musical observation
minor sixth	8	C–A♭	Context-dependent melodic leap or harmony
major sixth	9	C–A	Context-dependent melodic leap or harmony
minor seventh	10	C–B♭	Important in dominant and minor-seventh chords
major seventh	11	C–B	Leading-tone relation or stable color in a maj7 chord
octave	12	C4–C5	Same pitch class across registers

Intervals are **not fixed emotional presets**. A rising semitone into the tonic and a simultaneous semitone cluster use the same distance but behave differently.

4.2 The diagnostic

Hold instrumentation, rhythm, register and harmony stable as far as practical, and compare an explicit interval change. Do not conclude an interval is present solely from a mood descriptor. The interactive application can demonstrate the sounds; printed diagrams need only show the relevant notes, accurately positioned.

4.3 Distinguish melodic from simultaneous intervals



FIGURE 04 · Two pitches shown without an assigned rhythm.

Play **B4 → C5** in C major: the semitone is an upward melodic resolution toward tonic. Play **B4 and C5 simultaneously**: now the two notes can rub against one another. Both involve one semitone, but the function changes when the notes are successive rather than simultaneous. Likewise **C–B** is a major seventh above C, yet Cmaj7 can sound settled in some jazz styles. The interval name describes a distance; emotional terms describe possible responses to a contextual sound.

Prompt experiment: Request two versions of the same brief texture, one emphasizing a melodic semitone *resolution* and one using sustained neighboring-note *clusters*. Inspect the audio before concluding that the contrast was produced.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Intervals have size and quality; melodic succession differs from simultaneous harmony. Interval meaning depends on context.

2 · FROM THEORY TO PROMPTING

Specify a particular pitch movement and whether notes occur successively or together.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Compose a short instrumental phrase in C major. Place B4
immediately before C5 as two successive melody notes, giving the
upward semitone a clear arrival on C5. Keep accompaniment
restrained.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"B4 to C5" specifies a rising melodic semitone; "successive" prevents confusing it with a simultaneous cluster.

4 · GUIDED VARIATIONS

A. Replace the rising B4–C5 with a descending C5–B4 and compare direction.

B. Request B4 and C5 sounding together rather than consecutively.

C. Keep B4–C5 but move the phrase to a different instrument.

5 · YOUR TURN

Write a prompt that distinguishes a melodic whole tone from a harmonic semitone.

6 · LISTEN, EVALUATE & REVISE

Listen for pitch movement versus a simultaneous pair; do not infer exact notes solely from an impression of tension.

CHAPTER 5: SCALES AND MODES

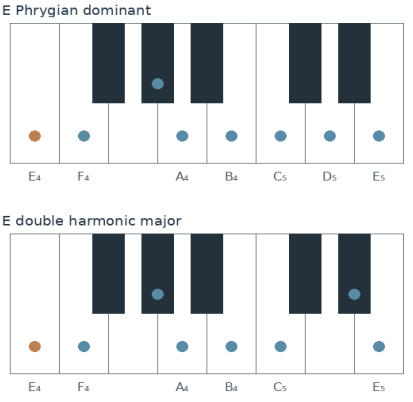


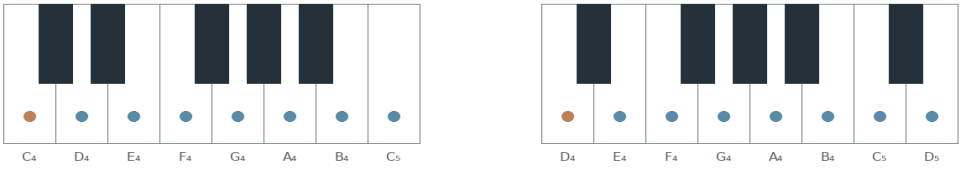
Illustration. Modal pitch collections and tonic comparison

Beginner checkpoint: building and hearing a mode

For each introductory mode, use the one-octave white-key collection but emphasize a **different tonic**. The example must establish its home note, not only its starting pitch. A useful written design for D Dorian is: sustain D in the bass; emphasize D and A at phrase boundaries; let B natural appear as the sixth above D. For E Phrygian: sustain E; highlight the F–E semitone; and return repeatedly to E.

Do not confuse relative and parallel comparison. D Dorian and C Ionian contain the same seven pitch classes but have different tonics. D Dorian and D Aeolian share tonic D but differ in the sixth: B versus B♭. The second pair is more useful when isolating the characteristic sound of Dorian.

5.1 One collection, seven tonal centers



C Ionian D Dorian

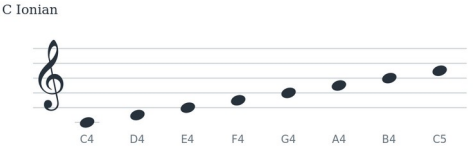


FIGURE 05 · Pitches are shown without an imposed rhythmic pattern.

Use only the natural-note collection as the introductory teaching convention. These are **relative modes**, not seven different collections. Modal identity requires an established center, melodic emphasis and musical context; simply playing the same notes starting elsewhere is insufficient.

Mode	Introductory tonic	Scale (one octave)	Distinguishing feature relative to major/minor
Ionian	C	C D E F G A B C	Major scale
Dorian	D	D E F G A B C D	Minor third, natural sixth
Phrygian	E	E F G A B C D E	Minor third, lowered second
Lydian	F	F G A B C D E F	Major third, raised fourth
Mixolydian	G	G A B C D E F G	Major third, lowered seventh
Aeolian	A	A B C D E F G A	Natural minor
Locrian	B	B C D E F G A B	Lowered second and diminished fifth

5.2 What creates modal identity?

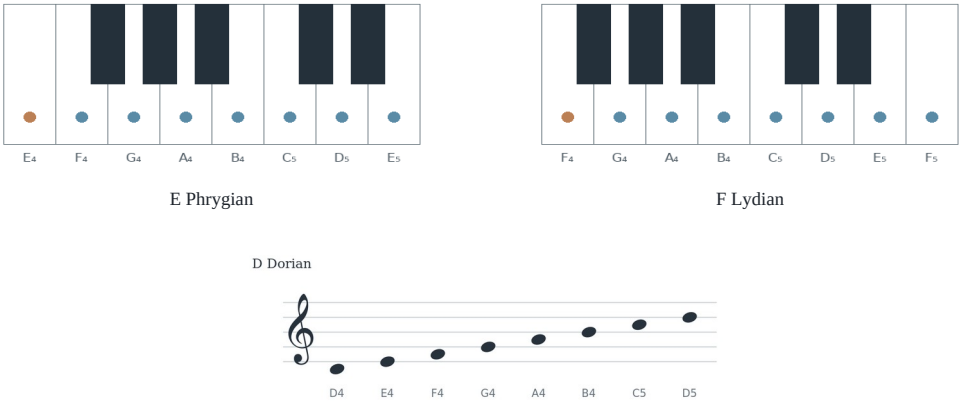
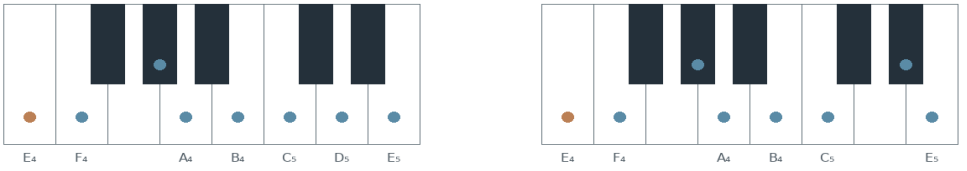


FIGURE 06 · Pitches are shown without an imposed rhythmic pattern.

For **D Dorian**, emphasize D as home and make B natural (natural sixth) musically perceptible. For **E Phrygian**, use E as home and emphasize F natural, the lowered second. F Lydian requires B natural over F as tonal center; G Mixolydian requires F natural in G-centered music. These properties, not fixed moods, identify the modes.

5.3 Additional Western compositional scale resources



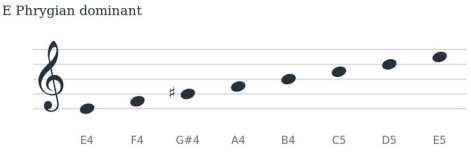


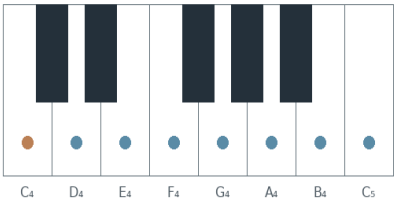
FIGURE 07 · Pitches are shown without an imposed rhythmic pattern.

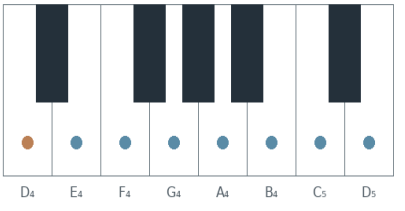
The following comparison is intentionally in **E**, to keep the tonic fixed:

Scale	Notes	Degree pattern
E Phrygian	E F G A B C D E	1 ♭2 ♭3 4 5 ♭6 ♭7
E Phrygian dominant	E F G♯ A B C D E	1 ♭2 3 4 5 ♭6 ♭7
E double harmonic major	E F G♯ A B C D♯ E	1 ♭2 3 4 5 ♭6 7

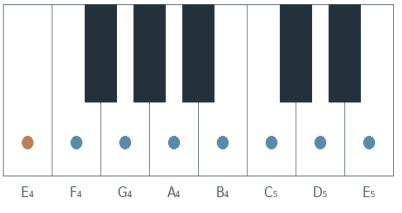
E Phrygian dominant to E double harmonic major changes **D to D♯**, holding the other pitch classes constant. Some scale names have histories outside Western tonal music; that does not require introducing an unrelated theoretical curriculum here. Keep the discussion accurate without claiming exact interchangeability with a full non-Western modal tradition.

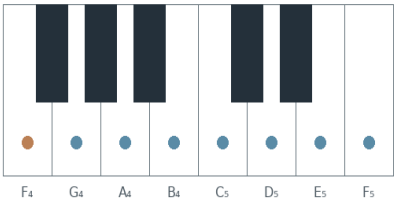
5.4 A seven-mode reference in one keyboard collection



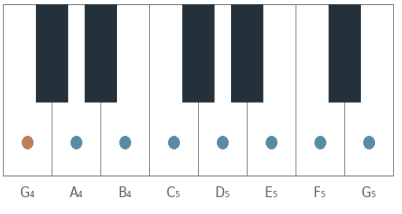


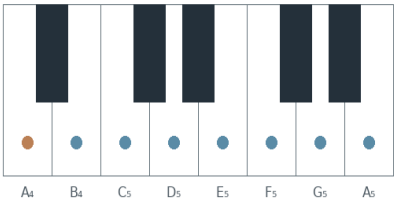
Ex. 08 · Shared natural-note collection; distinct tonic and modal identity. | Ex. 09 · Shared natural-note collection; distinct tonic and modal identity.





Ex. 10 · Shared natural-note collection; distinct tonic and modal identity. | Ex. 11 · Shared natural-note collection; distinct tonic and modal identity.





Ex. 12 · Shared natural-note collection; distinct tonic and modal identity. | Ex. 13 · Shared natural-note collection; distinct tonic and modal identity.

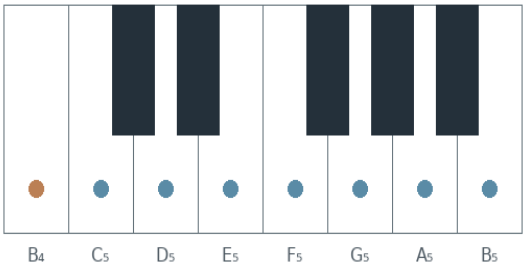


FIGURE 14 · Shared natural-note collection; distinct tonic and modal identity.

The seven introductory modes share C, D, E, F, G, A and B, but each needs **its own home note**. A continuous run from D to D using white keys does not automatically sound Dorian if C still feels like home. Dorian requires that D act as the tonal center; B natural is the characteristic natural sixth. Similarly, E Phrygian requires an E center and F natural as its lowered second.

The scale-color comparison must hold its tonic fixed. E Phrygian differs from E Phrygian dominant by G→G♯. E Phrygian dominant differs from E double harmonic major by D→D♯. These compare one pitch class at a time, allowing the reader to hear the intended difference. Describing a scale as inherently "hopeful," "Spanish," or "threatening" is not a definition.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Modes share or change pitch collections, but each requires a perceptible tonic and characteristic scale degree.

2 · FROM THEORY TO PROMPTING

State the mode, establish its tonic, and emphasize the degree that distinguishes it.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Compose a short D Dorian instrumental melody over a sustained D-
centered accompaniment. Use the natural-note collection D E F G A
B C, emphasize B natural as the characteristic sixth, and return
convincingly to D.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"D Dorian" names tonic and mode; "B natural" differentiates it from D natural minor.

4 · GUIDED VARIATIONS

A. Change to E Phrygian and emphasize F natural against E.

B. Compare D Dorian with D Aeolian while keeping D as tonic.

C. Keep D Dorian but vary register and accompaniment texture.

5 · YOUR TURN

Specify a clear tonal center and characteristic pitch for a mode taught in this chapter.

6 · LISTEN, EVALUATE & REVISE

Check whether the home note persists and whether characteristic pitches occur; a white-key collection alone does not confirm a mode.

CHAPTER 6: KEY AND TONAL CENTER AS CONTAINERS

Beginner checkpoint: tonic, key signature, and scale

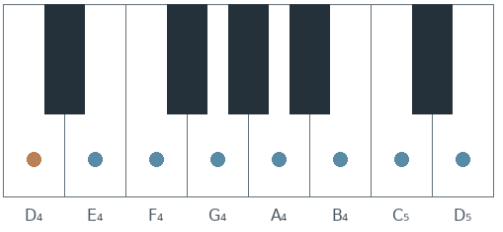
The **key signature** lists alterations conventionally used by a notated key; it does not by itself prove which note sounds like home. C major and A minor share a blank key signature, yet the tonic changes the organization of the music. A **tonal center** is inferred from musical evidence such as bass emphasis, melodic resting points, repeated harmonic arrivals, and cadences. Do not assume the first chord automatically decides the key.

Mini-analysis: C | F | G | C, with C established as the tonal center, gives I | IV | V | I. Am | Dm | E7 | Am, with A established, gives i | iv | V7 | i. The raised G♯ in E7 is an ordinary minor-key leading tone, not evidence that the piece has changed to E major.

A *key* describes an organized hierarchy centered on a tonic, often with functional relationships among chords. A *mode* identifies a particular pitch-interval structure that can be centered on a tonic without behaving like common-practice major/minor harmony. A pitch collection alone does not establish either one.

C major example: C–G–Am–F gives I–V–vi–IV if C is home. **A natural minor example:** Am–F–C–G gives i–VI–III–VII if A is home. The second sequence does not, by itself, establish the primary dominant E7 or a minor-key authentic cadence.

D Dorian example: Dm7–G with a D tonal center emphasizes B natural in G; no conventional V–i cadence is required. **E Phrygian example:** Em–F–Em can emphasize F against E, but the melody and bass must reinforce E as center.



If using a text-to-audio model, describe the target (tonic, characteristic note, texture and phrase placement), then verify what actually occurred. Chord brackets are optional system-dependent conventions, not universally accepted notation.

6.1 Modal identity without a conventional dominant

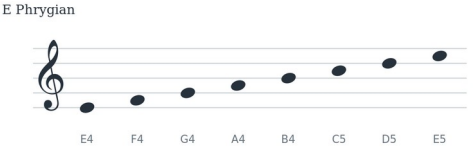


FIGURE 15 · F natural is the characteristic lowered second above E.

An E Phrygian passage may center E through drone, repeated bass notes, melody endings and the F→E half-step without using B7→Em. In D Dorian, Dm7–G introduces B natural within the G major chord and can support a D-centered modal vamp. The progression alone does not prove that D is home; the bass, melodic emphasis and phrase design must support it.

Key declaration check: In A minor, E7 with G♯ is a normal functional dominant even though G♯ is absent from A natural minor. "Use only A natural-minor notes" and "include an E7 dominant" cannot both be fulfilled literally. Allow the raised leading tone, or replace E7 with Em if the natural-minor collection must remain strict.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

A key or tonal center provides a hierarchy of stability, not merely an inventory of allowed notes.

2 · FROM THEORY TO PROMPTING

Distinguish the named key from musical evidence that establishes its tonic.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create a brief instrumental passage centered on C major. Establish
C as a stable home through recurring melodic arrivals and a C-
major closing harmony. Avoid making G sound like the final home
note.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"C major" names the key; "closing harmony" and "melodic arrivals" describe evidence of the center.

4 · GUIDED VARIATIONS

A. Keep the pitch collection but make G a plausible tonal center.

B. Remove the C-major closing harmony and compare tonal ambiguity.

C. Maintain C as tonic with a different lead instrument.

5 · YOUR TURN

Write a tonic-establishing instruction without relying on a scale name alone.

6 · LISTEN, EVALUATE & REVISE

Listen for where phrases settle; distinguish the requested tonal center from an actually audible arrival.

CHAPTER 6.5: FROM SCALES TO CHORDS

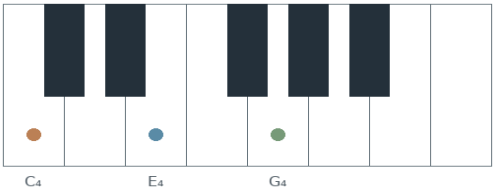


Illustration · C major triad in the relevant keyboard register

Before the first progression: how to read chord symbols

A note name on its own, such as **C**, can refer to a pitch; a chord symbol **C** usually means a C-major triad in harmonic notation. The symbol **Cm** means C minor. **C/E** identifies a C-major chord with E as its bass note, while **Cmaj7** adds B and **C7** adds B♭. Symbols represent harmonic information, not guaranteed rhythm or instrument assignment.

The reader should be able to reconstruct C–E–G, D–F–A, G–B–D, and A–C–E from the C-major scale before working with an entire progression.

6.5.1 One Scale, Several Chords

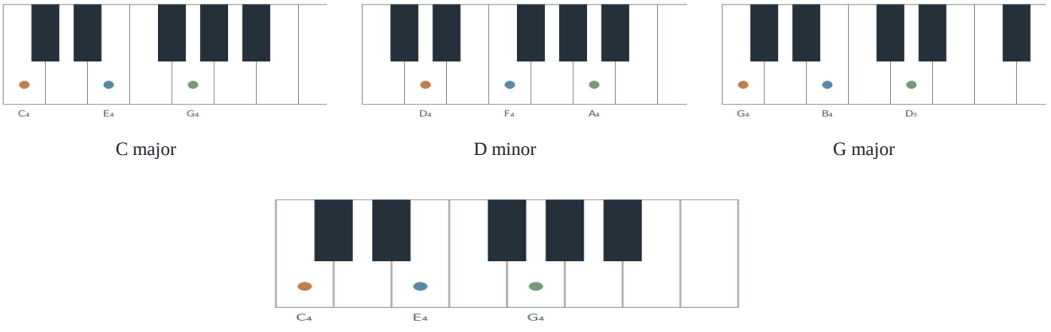


FIGURE 16 · Exactly the active pitch range, with small aligned markers.

We will use C major because its notes are the seven white-note pitch classes: **C–D–E–F–G–A–B**. The note C functions as the tonic when the music establishes C as its tonal center. The same seven notes can serve a different tonic in the relative modes introduced in Chapter 5; a mode is not established simply by starting a scale at another note.

A **chord** is a group of pitches understood as a harmonic unit, whether sounded together or outlined in succession. A **triad** consists of a root, third, and fifth, normally built by stacking thirds. A practical first method is to take alternate notes from a scale. Starting on C, take **C–**E–G. That is a C-major triad. You can see those three notes on the accompanying keyboard diagram.

C is the **root**: the note used to name the chord. E is its **third**, and G is its **fifth**. These names describe intervals above C, not a fixed performance order. Played together, the notes sound as a block chord. Played one after another, they outline a C-major arpeggio.

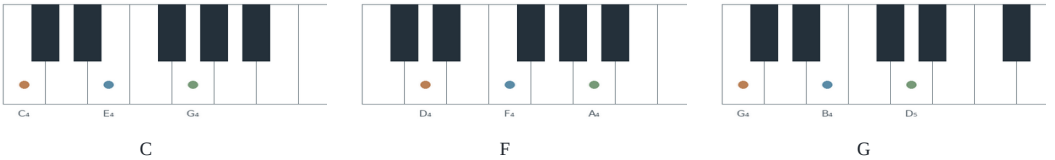
6.5.2 Why Chord Quality Changes

Chord **quality** is determined by the distances between its notes. In twelve-tone equal temperament, a major triad contains a major third (4 semitones) and perfect fifth (7 semitones) above its root. A minor triad contains a minor third (3) and perfect fifth (7). A diminished triad has a minor third (3) and diminished fifth (6). An augmented triad has a major third (4) and augmented fifth (8).

Quality	Example	Root-to-third	Root-to-fifth
Major	C–E–G	4 semitones	7 semitones
Minor	C–E♭–G	3	7
Diminished	C–E♭–G♭	3	6
Augmented	C–E–G♯	4	8

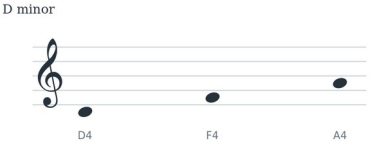
Listen: compare C–E–G with C–E♭–G. Only one pitch moves: the third. You can hear the change before you try to describe it emotionally. Musical color depends on voicing, timbre, register, rhythm, and context; major does not invariably mean happy, and minor does not invariably mean sad.

6.5.3 Chords Built from C Major
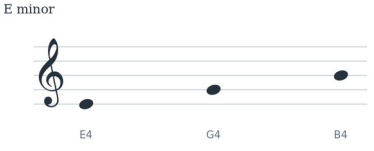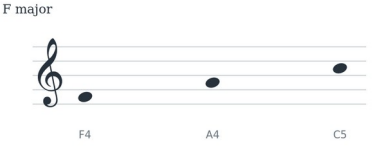




Ex. 17 · Triad pitch spelling; no rhythmic realization implied.
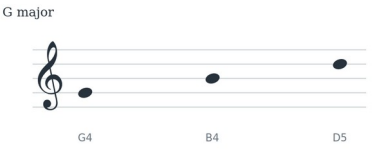


Ex. 18 · Triad pitch spelling; no rhythmic realization implied.



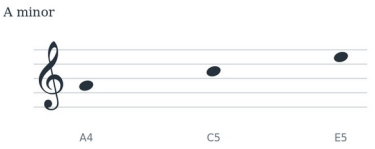
Ex. 19 · Triad pitch spelling; no rhythmic realization implied.



Ex. 20 · Triad pitch spelling; no rhythmic realization implied.



Ex. 21 · Triad pitch spelling; no rhythmic realization implied.



Ex. 22 · Triad pitch spelling; no rhythmic realization implied.



FIGURE 23 · Triad pitch spelling; no rhythmic realization implied.

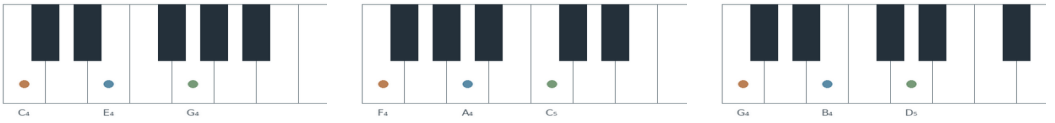
Build one triad on each scale degree while using **only** the notes of C major:

I: C · ii: Dm · iii: Em · IV: F · V: G · vi: Am · vii°: Bdim

This is called **diatonic harmonization**. Capital Roman numerals denote major chords; lowercase numerals denote minor chords, and ° denotes a diminished chord. Roman numerals give a chord's *position and quality within a stated key*, not merely its name. In a different key, V means a different letter-name chord.

> **Simple check:** In C major, what is ii? Find the second note (D), then stack alternate notes (D–F–A). The result is D minor: **ii**.

6.5.4 Chord Root, Bass Note, and Inversion



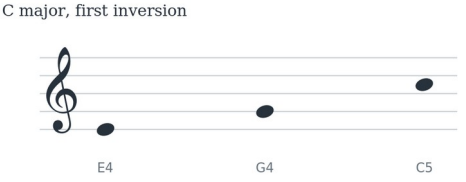


FIGURE 24 · E is the bass; C remains the chord root.

The **root** identifies a chord; the **bass note** is the lowest note actually sounding. They can be different.

- **C**: C–E–G with C in the bass (root position).
- **C/E**: C–E–G with E in the bass (first inversion).
- **C/G**: C–E–G with G in the bass (second inversion).

These are not three unrelated chords: their pitch classes are the same, but the lowest note changes. An inversion can help one chord connect smoothly to the next. A slash chord such as **C/E** means "C-major chord over E in the bass"; it does **not** mean E major.

To hear the difference, play **C → G → Am → F** first using root-position chords. Then listen to a version that changes chord positions and inversions to reduce large shifts in the upper voices. The underlying progression stays the same, while the individual voice movements can become smoother. The later voice-leading chapter will examine these movements in detail.

6.5.5 Beyond Triads: Seventh Chords

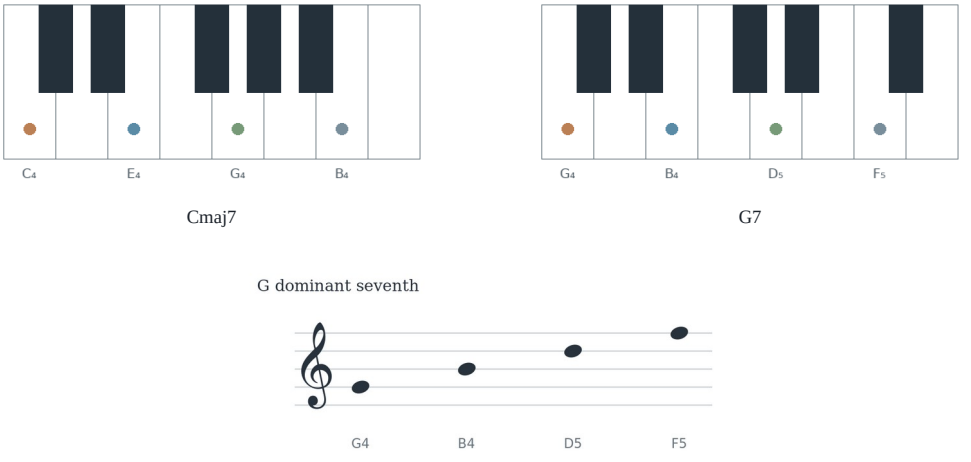


FIGURE 25 · G–B–D–F, the primary V7 chord in C major.

Adding the next alternate note produces a **seventh chord**. For example, C–E–G–B is **Cmaj7**, and G–B–D–F is **G7**. The seventh is named for the interval above the chord root; G7 means G dominant seventh, not a G-major triad with a major seventh.

Symbol	Notes	Basic meaning
C	C–E–G	Major triad
Cm	C–E♭–G	Minor triad
Cmaj7	C–E–G–B	Major triad plus major seventh
C7	C–E–G–B♭	Major triad plus minor seventh
Cm7	C–E♭–G–B♭	Minor triad plus minor seventh

The essential point is *not* to memorize every extension now. Chapter 14 will add ninths, elevenths, thirteenths and alterations after the reader has heard how basic chords connect.

6.5.6 From Chords to a Progression

A **chord progression** is a sequence of harmonies. In C major, **C–G–Am–F** corresponds to **I–V–vi–IV**. The Roman numerals describe the sequence in the key; the chord symbols name its actual notes.

A chord symbol does not specify how long it lasts. That is **harmonic rhythm**: the timing and frequency of chord changes. One chord per bar in 4/4 at quarter note = 96 BPM is a different musical event from four chords in a single bar, even if the chord sequence is identical.

Our cumulative harmonic framework: Theme A (eight bars)

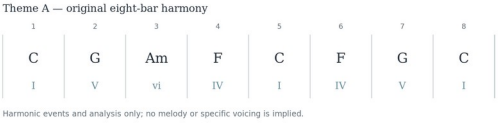


FIGURE 26 · C major · one chord per bar · 4/4 · quarter note = 96 BPM.

Suggested texture: simple sustained piano chords. The chord map leaves the melody and playback unspecified; use the companion Interactive Lab to explore melodic and listening exercises.

See Figure 26 for the exact eight-bar map. The last G–C has the V–I **harmonic pattern associated with an authentic cadence**, but the chord symbols alone do not establish a phrase-ending cadence or its strength. A phrase-ending melody, rhythmic articulation and audible closure must support it.

In later chapters, **Theme A remains the shared harmonic example**: Level 2 studies possible phrase endings and voice-leading choices; Level 3 reharmonizes it; Level 4 expands its form; Level 5 specifies, renders and evaluates it in an AI-assisted workflow. Playable melody demonstrations, precise score playback and listening comparisons are reserved for the companion interactive application. The chord map is a teaching framework, not proof of a completed cadence or a guarantee that generated audio will reproduce its labels.

6.5.7 A Simple Prompt and a Better Test

General idea: Calm piano piece with warm harmony.

More explicit musical target: Instrumental piano, C major as tonal center, 96 BPM, 4/4; eight bars; one harmony per bar: C | G | Am | F | C | F | G | C. Clear melody, gentle articulation; make the final G-to-C arrival a phrase ending.

These are *instructions for an audio model to attempt*. They are **not** a symbolic score and do not guarantee exact notes or bar counts. For an exact, verifiable target, keep a score or MIDI reference and compare the generated audio against it by listening and, when practical, by transcription.

Reading exercise: Identify the triad and Roman numeral in each bar of Theme A. Mark where V moves to vi (bars 2–3) and where V moves to I (bars 7–8). Describe the latter as a *potential* authentic cadence, not a verified phrase-ending cadence. Interactive playback, melody and listening-based testing belong in the companion application.

Transition to Chapter 7

You now know where a chord comes from, why the seven diatonic triads have different qualities, and how a sequence of chords occupies musical time. Chapter 7 compares familiar progression patterns and teaches how to describe them consistently. The point is not that the same chords always create the same emotion: **the way they are arranged, voiced, timed and heard is what creates musical movement.**

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Triads are built by chord tones; roots and inversions alter bass position without necessarily changing chord identity.

2 · FROM THEORY TO PROMPTING

Specify chord notes, bass position and whether the notes should be sounded together.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create a slow piano study of C major triads. First sound C–E–G
with C in the bass, then place E in the bass under the same C-
major chord tones to demonstrate first inversion. Keep the change
audible.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"C–E–G" spells the triad; "E in the bass" identifies first inversion.

4 · GUIDED VARIATIONS

A. Compare root-position C major with second inversion G–C–E.

B. Repeat the comparison using an A-minor triad.

C. Break the chord into an arpeggio instead of simultaneous notes.

5 · YOUR TURN

Describe a triad and one inversion using accurate note names and a specified bass.

6 · LISTEN, EVALUATE & REVISE

Check bass pitch and chord-tone content; inversion cannot be established by the chord label alone.

CHAPTER 7: PROGRESSIONS AND THE TRANSLATION MATRIX

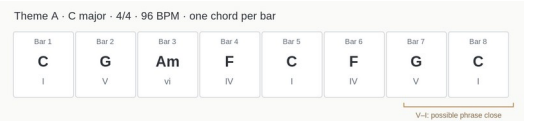


Illustration. Theme A: eight-bar harmonic framework

Beginner checkpoint: a progression is a sequence in time

A chord progression is not just a bag of chords. Order matters, duration matters, and the tonic determines the Roman numerals. **C–G–Am–F** and **Am–F–C–G** are rotations of the same four-chord cycle, but starting at Am does not automatically establish A minor. **C–Am–F–G** is a different order, conventionally associated with the 1950s progression.

The safest first reading method is to write **key → chord names → Roman numerals → one chord per bar (or another stated duration)**. Do not add claims about emotional effect or cadence strength until actual phrase evidence exists.

7.1 Build a progression, don't memorize an adjective



FIGURE 27 · Chord sequence, not a claim that a complete cadence has been realized.

The introductory C-major chords are C (I), Dm (ii), Em (iii), F (IV), G (V), Am (vi), Bdim (vii°). Roman numerals identify their relationship to C; the same chord can have another function in another key.

Corrected reference set

Name	Roman numerals	Chords in C	Comment
Common Axis loop	I–V–vi–IV	C–G–Am–F	Four-chord pop loop
Axis rotation	vi–IV–I–V	Am–F–C–G	Same cyclic order, new starting position
1950s progression	I–vi–IV–V	C–Am–F–G	Distinct cyclic order
Tonic–predominant–dominant return	I–IV–V–I	C–F–G–C	Can support a cadential arrival
Jazz-directed progression	ii–V–I	Dm–G–C	Three-chord functional sequence

The first two are rotations, not different cyclic orderings. Neither written chord list proves a completed phrase or a given emotion.

7.2 Translate intention into musical decisions

"Settled" may suggest a tonic arrival; "unresolved" may call for a phrase ending on a dominant. Those are **compositional hypotheses** to check, not fixed emotional formulas. Changing harmonic rhythm, bass note, register or instrumentation can change the result even when the chord symbols remain the same.

7.3 Continuing framework: Theme A

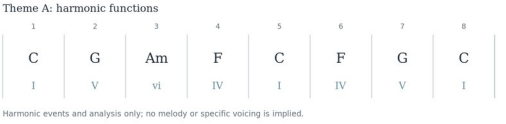


FIGURE 28 · The original eight-bar harmonic plan remains unchanged.

C major · 4/4 · 96 BPM · eight bars · one chord per bar

The G–C in bars 7–8 supports a possible authentic cadence **only if** the full phrase confirms arrival through rhythm, melody and articulation. Theme A is currently a **harmonic framework**, not an already completed melody or a demonstrated audio example.

7.4 Reading related progressions

C–G–Am–F and Am–F–C–G use the same four-chord cycle with a different starting position. C–Am–F–G is the distinct 1950s pattern. Dm–G–C illustrates ii–V–I in C major and can lead to a functional arrival with the right voicing and phrase context. Do not claim that a rotation necessarily establishes a new tonic: the same notes can still emphasize C as home.

Accessible prompt pair: Vague: "an emotional pop progression." Specific musical target: "C major, four bars, one chord per bar: C | G | Am | F, with a consistent piano register." Ask students to distinguish the *written progression* from the *progression confirmed in the recorded result*.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Harmonic progressions connect successive chords; harmonic rhythm states when changes occur.

2 · FROM THEORY TO PROMPTING

Turn a chord sequence into an ordered, time-positioned instruction.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create an eight-bar instrumental study in C major, 4/4. Play one
chord per two-bar span in this exact order: C major, G major, A
minor, F major. Finish the final section on F without claiming
that this is a full authentic cadence.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Exact order" and "two-bar span" specify progression and harmonic rhythm separately.

4 · GUIDED VARIATIONS

A. Use one chord per bar and repeat the cycle once.

B. Change the order to C–Am–F–G while keeping the length.

C. Keep the progression but use block chords instead of arpeggios.

5 · YOUR TURN

Write an eight-bar progression including both chord sequence and chord-change locations.

6 · LISTEN, EVALUATE & REVISE

Check chord order and transition locations; stylistic similarity does not prove the harmony occurred.

CHAPTER 8: THE TEMPORAL GRID

Beginner checkpoint: bars and beats are not interchangeable

In **4/4**, the upper number means four counted beats per bar and the lower number identifies the quarter note as the notated beat unit. At quarter note = 96 BPM, a bar of four quarter notes lasts 2.5 seconds; eight bars last 20 seconds when played strictly in tempo. The duration is arithmetic, not a promise from a text-to-audio model.

Beat versus subdivision: Four quarter notes and eight eighth notes fill the same 4/4 bar. The rhythm is different because the note onsets differ. **Syncopation** places emphasis away from an expected metric accent; **swing** concerns unequal or stylistically inflected subdivisions and phrasing. Neither is guaranteed solely by stating a BPM.

Pulse is an underlying regular beat; **tempo** specifies its speed; **meter** organizes beats into recurring patterns; **rhythm** describes duration and onset of events; **harmonic rhythm** describes how frequently harmony changes. These are different parameters.

- In 4/4, four quarter-note beats fill a bar; at 96 quarter-note BPM, Theme A's eight bars contain 32 beats.
- In 3/4, there are three quarter-note beats per bar, but accenting and phrasing determine whether the music feels like a waltz.
- In 6/8, two groups of three eighth notes commonly create two larger dotted-quarter beats; always identify which unit the tempo marks.
- In 7/8 grouped 2+2+3, the unequal groups affect accent and motion. A bare "7/8" does not uniquely prescribe grouping.
- "Half-time feel" often changes the perceived backbeat without changing the displayed project tempo.

Three harmonic-rhythm comparisons: (A) one chord per bar, (B) one chord every two bars, (C) two chords per bar. These produce different harmonic pacing at the same nominal BPM. For a controlled comparison, the section length and note durations must be explicitly adjusted.

8.1 Harmonic-rhythm arithmetic for Theme A



FIGURE 29 · One chord per 4/4 bar; four bars contain sixteen quarter-note beats.

Theme A has eight bars of 4/4: **32 quarter-note beats**. At quarter note = 96 BPM, its notated span is **20 seconds**, ignoring pauses or expressive deviations. If each chord occupies one bar, there are eight chord events. Two chords per bar would require sixteen chord events for the same eight-bar duration; one chord every two bars would give four chord events. Do not compare these by merely changing a chord-rate phrase while leaving all duration labels unspecified.

Metric grouping: Seven eighth notes may group 2+2+3 or 3+2+2. The bar contains the same nominal duration but different accent organization. Distinguish grouping from time signature and specify actual subdivisions where essential.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Meter, beats, tempo and bar positions form a temporal grid for musical events.

2 · FROM THEORY TO PROMPTING

Specify duration with bars, beat unit, time signature and BPM without confusing them.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create an eight-bar instrumental pattern in 4/4 at quarter note =
96 BPM. Introduce a new bass figure at bar 5 while keeping the
underlying beat and meter unchanged.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Bar 5" fixes the requested entrance; "quarter note = 96 BPM" identifies the tempo unit.

4 · GUIDED VARIATIONS

A. Change the tempo to 72 BPM while keeping eight bars.

B. Change to 3/4 and state the beat unit explicitly.

C. Move the bass entrance from bar 5 to bar 3.

5 · YOUR TURN

Write a duration-and-entrance instruction that uses bars and beat units unambiguously.

6 · LISTEN, EVALUATE & REVISE

Count bars and pulses; audio duration alone cannot prove the time signature.

CHAPTER 9: MELODIC CONTOUR AND TEXTURE

Beginner checkpoint: melody, bass and accompaniment

A **melody** is a recognizable line with pitch and rhythm. A **bass line** is a lower melodic part that often shapes harmonic hearing. An **accompaniment** supports or interacts with another line; it can itself contain melodic movement. **Contour** describes a line's up-and-down path but does not tell us the exact pitches. **Texture** describes how simultaneous musical parts relate.

Theme A is intentionally a harmonic framework. Saying "ascending melody" does not supply pitches or durations. The printed example defines melodic design principles without presenting a definitive tune; the companion Interactive Lab supports playable and adjustable exercises.

A melody is an ordered sequence of pitches and durations. **Contour** is the broad direction of its movement: ascending, descending, arch-shaped, repeated, or irregular. **Range** is the span between its lowest and highest notes. **Motive** is a short recognizable figure that can return in varied form.

Texture identifies how lines relate:

- **Monophonic:** one melodic line without independent accompaniment.
- **Homophonic:** a principal melody with supporting chordal accompaniment, or parts moving together rhythmically.
- **Polyphonic:** multiple comparatively independent melodic lines.
- **Heterophonic:** simultaneous variants of one melodic idea.

Voice leading examines how individual notes move between harmonies. Moving by step and retaining common tones often produces smooth connections, but avoiding parallel fifths/octaves is a **style-dependent common-practice convention**, not a universal Western music law. Likewise, a bass leap does not prove that musical function is absent.

Theme A exercise: identify one possible chord tone for a melody in each bar. Label the notes as *design choices*, not as a finished tune; performance and interactive playback remain in the app.

9.1 Melody, texture and voice leading are separate concepts

Melodic contour is the shape of one line. **Texture** concerns how multiple parts relate. **Voice leading** follows the motion of each part through successive harmonies. Asking for "rising melody" does not automatically specify how the alto, tenor, bass, or accompaniment move.

Example: In the move C major → F major, one possible upper voice holds C while E moves to F and G moves to A. This is one valid smooth connection, not a universal rule and not a guarantee for an audio model. Parallel perfect fifths are restricted in particular common-practice contrapuntal styles, but deliberately used in others.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Melodic contour describes directional shape; texture describes how musical lines interact.

2 · FROM THEORY TO PROMPTING

Describe ascent, descent, repetition and layer density as separate variables.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Compose a short instrumental melody that rises gradually during
its first phrase, holds one repeated tone at the center, then
descends toward a resting note. Begin with a single exposed line
and add a quiet sustained accompaniment afterward.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Rises" and "descends" name contour; "single exposed line" specifies texture.

4 · GUIDED VARIATIONS

A. Reverse the contour while retaining the instrumentation.

B. Keep the contour and use a denser accompaniment.

C. Replace the repeated middle note with a sustained note.

5 · YOUR TURN

Write one contour instruction and one texture instruction that could be tested independently.

6 · LISTEN, EVALUATE & REVISE

Hear the rise, plateau and fall; note if texture obscures rather than supports the melody.

CHAPTER 10: THE LEVEL 1 SPECIFICATION

A complete foundation exercise, without needing the app

Written task: In C major and 4/4, copy Theme A's eight chord symbols, spell each triad, supply Roman numerals, and indicate that each chord lasts one bar. Label C as the tonic, G as the dominant triad, and distinguish Am (vi) from an A-major chord. Circle bars 7–8 as a **candidate V–I ending**, not proof of a completed cadence.

Self-check: C = C–E–G; G = G–B–D; Am = A–C–E; F = F–A–C. The complete numerals are I | V | vi | IV | I | IV | V | I. Eight bars of 4/4 at quarter note = 96 BPM contain 32 quarter-note beats and last 20 seconds at constant tempo.

Ready for Phase 2 when you can: reconstruct major/minor triads, distinguish tonic from chord root, read Roman numerals in C major, calculate a simple bar duration, and explain why a chord-only V–I cannot prove an authentic cadence. Phase 2 adds the melodic and rhythmic phrase evidence that makes a cadence meaningful.

10.1 Written eight-bar target

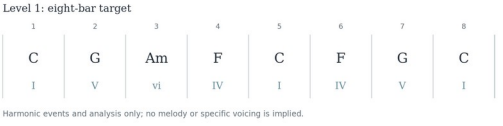


FIGURE 30 · Measure numbers and functional labels align with the harmony.

- **Center:** C major.
- **Meter:** 4/4.
- **Tempo:** quarter note = 96 BPM.
- **Harmony:** bars 1–8 = C | G | Am | F | C | F | G | C.
- **Harmonic rhythm:** one chord per bar.
- **Texture:** piano and restrained bass (example; an arrangement choice, not theoretical necessity).
- **Melodic task:** establish C as home; leave precise melodic notation to the companion application.
- **Phrase goal:** bars 7–8 support V–I; do not claim an authentic cadence without the completed phrase.

10.2 Model-facing request

"Create an eight-bar instrumental piano-and-bass idea in C major, 4/4, quarter note = 96 BPM, with one chord per bar: C | G | Am | F | C | F | G | C. Keep a clear C tonal center and make the ending feel settled. Do not add vocals."

This is **not proof** that the generated file contains eight bars, the requested chords, or C major. The app may provide playback and pitch detection; the reader should compare the render against the written plan.

10.3 Acceptance checklist

6. Can the reader identify tonic, meter, chord quality and Roman numerals correctly?
7. Does the example distinguish *planned* chord changes from *confirmed* output?
8. Are the note names and keys consistent across tables and diagrams?
9. Is a cadence called possible unless the musical phrase is actually specified?
10. Does each diagram display only the register needed, with correctly aligned small dots and no wasted keyboard range?

Transition to Level 2: Level 1 gives us a valid harmonic framework. The next level asks *what the harmonies do in a phrase*, how melodic notes connect them, and how the entire phrase is organized in time.

10.4 Level 1 readiness and handoff

A learner should now be able to name the notes of a major or minor triad, assign Roman numerals in an established major key, distinguish tonic from root and bass note, identify beat unit and meter, and explain why a written V–I movement may or may not become an audible cadence.

Continuity check: The Level 2 chapters keep Theme A's C-major, eight-bar chord map unchanged as their baseline. Later alterations must be labeled as variants rather than silently replacing the example. A new melodic phrase or generated audio belongs in the interactive app, not in a claim that the printed harmonic framework has already been performed.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

A Level 1 specification combines measurable musical requirements into one coherent request.

2 · FROM THEORY TO PROMPTING

Separate obligatory musical invariants from stylistic preferences.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create an eight-bar piano-and-bass study in C major, 4/4, at
quarter note = 96 BPM. Keep the bass entrance at bar 5, maintain a
sparse texture initially, and conclude with a clear C-major
arrival.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

Key, meter, tempo and bar entrance are explicit; "sparse" remains a partly interpretive request.

4 · GUIDED VARIATIONS

A. Keep all fixed details but change the leading instrument.

B. Move only the bass entrance to bar 3.

C. Keep the plan but specify a descending melodic contour.

5 · YOUR TURN

Draft a complete Level 1 specification and mark every testable field.

6 · LISTEN, EVALUATE & REVISE

Record which requirements can be heard directly and which need transcription or a symbolic source.

CHAPTER 11: HARMONIC FUNCTION, PHRASE, AND CADENCE

11.1 From a chord name to a musical role

Chapter 6.5 showed how the C-major scale produces seven diatonic triads. Now ask a different question: **What is each chord doing in the phrase?** A chord has a *name* (such as G major), a *position within a key* (V in C major), and a possible *function* (dominant). These are related, but not interchangeable.

Three functional families provide a useful beginner's map:

Family	Everyday meaning	Common examples in C major	Musical job
Tonic (T)	Home	C (I); sometimes Am (vi), Em (iii) in tonic-prolonging contexts	Establish or prolong stability
Predominant (PD)	Move toward a dominant	F (IV), Dm (ii)	Prepare a dominant arrival
Dominant (D)	Expect return to tonic	G (V), G7 (V7), Bdim (vii°)	Create directed expectation

Important: chords do not carry fixed functions independent of their placement. For example, Am can prolong a tonic area or participate in a progression with another local role. The simple T–PD–D–T model is an introduction, not a universal formula for every style.

11.2 Follow a phrase, not merely a chord list
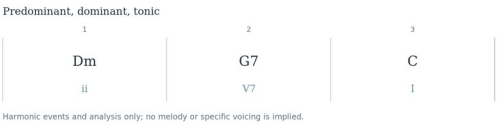


FIGURE 31 · ii–V7–I may support an authentic phrase ending in context.

Compare **C | F | G | C**: I–IV–V–I. In a conventional tonal setting, IV can prepare V, and V can move to I. This gives a possible **home → departure → expectation → return** trajectory. By itself, however, the chord list does not specify melody, accent, phrase length, or whether a listener will perceive a cadence.

Our running *Theme A harmonic framework* lasts eight bars, 4/4, 96 BPM, one chord per bar:

Bars **2–3** have V → vi: this may suggest a diversion from tonic, but the chord succession alone does not establish a deceptive effect. Do not call this a deceptive **cadence** unless the music establishes an actual phrase-ending cadential context there. Bars **7–8** have V → I: they supply the harmony for a *possible* authentic cadence; the phrase must actually end there, and melodic and rhythmic closure still matter.

11.3 Cadences belong to the end of phrases



FIGURE 32 · The harmonic gesture alone does not determine the cadence type.

A **cadence** is a perceived ending or pause created by harmony, melody, rhythm, and phrasing. Chords alone show a cadential *possibility*, not necessarily a completed cadence.

Cadence	Basic harmonic motion in C major	What to listen for
Authentic	G(7) → C, V(7) → I	Phrase closes on tonic; stronger perfect authentic cadence requires root-position V and I and scale-degree 1 in the uppermost voice at the end
Half	Any suitable approach ending on G (V)	Phrase pauses on dominant, normally expecting continuation
Deceptive	G(7) → Am, V(7) → vi	An expected tonic arrival is diverted, in a cadential context
Plagal	F → C, IV → I	A closing IV → I gesture, often after a stronger cadence

Minor-key comparison: in A minor, E7 → Am is V7 → i, not a secondary dominant. The raised G♯ in E7 gives the leading tone of A minor. A phrase stopping on E or E7 may have a half cadence; D major is not V in E minor and therefore cannot stand for a conventional half cadence in that key.

A Phrygian half cadence, historically defined in minor-key common-practice harmony, commonly approaches V from iv6: in A minor **Dm/F → E**, with the characteristic semitone descent F → E in the bass. It does **not** mean the entire phrase is in E Phrygian mode.

11.4 What Theme A does and does not establish

Theme A has a harmonic return to tonic in bar 8. The companion Interactive Lab supports comparisons of melodic and rhythmic endings over the same eight chords. In the written example, classify only what the evidence supports: harmonic role, Roman numeral, harmonic rhythm, and potential cadence.

Paper exercise: In bars 5–8, identify the possible functional path: I → IV → V → I. Explain in one sentence why the last two chords suggest a possible authentic cadence, and in another why that is not enough to claim a fully composed cadence.

AI specification example (not a guarantee):

> Instrumental solo piano. C major tonic, 4/4, 96 BPM. Eight bars with one chord per bar: C | G | Am | F | C | F | G | C. Make bars 7–8 sound like a clear concluding phrase; avoid an added chord after the tonic. Compare the generated audio to the chord framework and listen for an audible closing gesture.

Transition to Chapter 12

The chords establish a harmonic framework. **The melody makes that framework move.** Chapter 12 explores notes that connect, delay, ornament, or anticipate chord tones. It also begins the distinction between melodic decoration and voice leading among multiple parts.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Harmonic functions and cadences depend on context, phrase ending and realized resolution.

2 · FROM THEORY TO PROMPTING

Request a functional approach to a tonic and specify the phrase ending.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Write an eight-bar passage in C major. In the final two bars place
G7 followed by C major, with a melody that approaches and settles
on C at the phrase ending. Make the concluding arrival
perceptible.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"G7 followed by C" suggests dominant–tonic motion; melodic and phrase context determine the cadence actually heard.

4 · GUIDED VARIATIONS

A. Remove the terminal melodic arrival and describe the effect.

B. Replace G7 with F before C and compare function.

C. Keep G7–C but leave the rhythmic ending open.

5 · YOUR TURN

Specify one cadence candidate with the harmonic and phrase evidence required.

6 · LISTEN, EVALUATE & REVISE

Do not classify a cadence as authentic solely because its last chord symbols are V–I.

CHAPTER 12: THE MELODIC LINE AND VOICE LEADING

12.1 Chord tones and the notes between them

Over a **C major chord (C–E–G)**, C, E, and G are chord tones. If a melody plays **E–F–G** while C major continues underneath, F is not in the chord: it is a **non-chord tone**. Here F connects E and G by step, so it can be a *passing tone*. The label depends on **which chord is sounding and how the note moves**, not on whether F belongs to the C-major scale.

Use the following compact reference. These are standard *common-practice* descriptions; actual practice varies by style.

Device	Simple movement	Typical context
Passing tone	Step in; step onward in same direction	E–F–G over C
Neighbor tone	Step away; step back	E–F–E over C
Appoggiatura	Usually approached by leap, resolved by step; commonly accented	An expressive accented arrival then release
Suspension	Chord tone is prepared, tied/held into a changed chord, then normally resolves downward by step	A delayed resolution at a change of harmony
Escape tone	Step in; leap away in opposite direction	Short melodic deflection
Anticipation	A note from the next harmony arrives early	Pre-echo of the following chord
Pedal point	Sustained or repeated pitch under changing harmony	Harmonic motion against a persistent bass or voice

Important distinction: a suspension requires preparation and retention across a harmony change. Calling any accented dissonance a "suspension" would be incorrect. A pedal point is a sustained pitch or musical device; it is not always classified as a conventional non-chord tone in every analytical system.

12.2 The melody is not the same as harmonic function

A passing tone may make a line smoother without changing the underlying chord. An appoggiatura or suspension can intensify a cadential arrival without requiring a new harmony. **Harmonic rhythm** asks when chords change; **melodic rhythm** asks when notes change. These are independent parameters.

Written test (no playback required): Hold C major for one bar. Compare the abstract melodic patterns E–G and E–F–G. Both can preserve C major; only the latter explicitly supplies a passing tone, assuming F is not treated as a new harmony.

12.3 What voice leading means

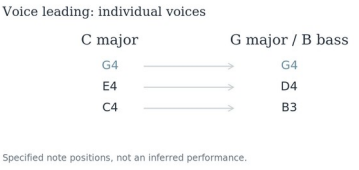


FIGURE 33 · Shown pitches require attention to each individual part.

Voice leading is the path taken by each individual voice from one harmony to the next. One practical strategy is to **retain common tones and move remaining notes by small intervals where the style supports it**. This improves connectedness, but is **not** a rule that every bass line or melody must move by the shortest distance.

Example: two realizations of the same C → F motion.

- Root-position triads: **C–E–G → F–A–C**. The note C can be kept in a shared voice if the voices are redistributed or revoiced.
- A closer-position realization: **C–E–G → C–F–A** (F major in second inversion, written **F/C**). One possible correspondence is C → C (common tone), E → F (semitone), G → A (whole tone).

The chord identities remain C and F. The second realization specifies *how* three voices may move. If bass C stays fixed, the second chord is F/C, not F in root position.

12.4 Style changes the rules

In traditional four-part common-practice counterpoint, parallel perfect fifths and octaves between the same voices are generally avoided to preserve independence. In rock power chords, parallel fifths may be central to the musical style; in impressionistic planing, parallel chord motion is a deliberate effect. Teach the historical convention **with its stylistic scope**, never as a universal prohibition.

Another useful common-practice tendency: chordal sevenths often resolve downward by step, and leading tones often move upward to the tonic. These are tendencies to evaluate in context, not guarantees from any AI prompt.

12.5 Return to Theme A

Over **C | G | Am | F | C | F | G | C**, the book can specify the desired *kind* of melodic movement without claiming a melody has already been written:

- Bars 1–4: mostly stepwise motion with passing and neighbor tones.
- Bars 5–6: one expressive accented non-chord tone may intensify the line.
- Bars 7–8: request a clear melodic resolution that helps articulate the potential V → I phrase ending.

These are compositional instructions, not an analyzed score. Use the companion Interactive Lab for interactive listening and comparison; verify any claimed notes or rhythms against the sounding result.

AI specification example:

> Keep the same eight-bar C-major harmony at 96 BPM. Favor a connected, mostly stepwise melody; use passing tones rather than changing the stated chords. In the final

two bars, aim for a clear melodic sense of resolution over G→C. Verify the audio: does the generated melody actually remain compatible with the assigned harmonies?

Transition to Chapter 13

We now have three distinct kinds of information: **which harmony sounds, how individual notes move, and where a phrase should end**. Chapter 13 collects those decisions into a bar-accurate arrangement specification without pretending that a text prompt is a score.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Voice leading concerns independently moving parts, including contrary motion, stepwise movement and resolution.

2 · FROM THEORY TO PROMPTING

Describe two simultaneous voices and their individual directions.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create a two-voice piano phrase: let the upper voice ascend
stepwise over four notes while the lower voice descends stepwise.
Keep both voices audible and avoid doubling them in unison.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Upper" and "lower voice" assign parts; "contrary motion" is expressed as opposite directions.

4 · GUIDED VARIATIONS

A. Change both voices to move upward in parallel direction.

B. Keep the contrary motion but use longer note durations.

C. Make one voice stationary while the other moves.

5 · YOUR TURN

Write two clearly separated instructions for independent voice movement.

6 · LISTEN, EVALUATE & REVISE

Use listening or transcription to verify each line; a moving texture alone does not demonstrate contrary motion.

CHAPTER 13: ARR-SPEC — FROM HARMONY TO SECTION DESIGN

13.1 Why specify a section before generating it?

A **musical section** is more than a list of chord symbols. It occupies bars, unfolds at a tempo, gives each instrument a role, and points toward a continuation or ending. ARR-SPEC is the book's **arrangement specification**, written before any AI generation. It makes the intended music inspectable and provides a reference for judging the output.

Define fields in this order:

11. **Tonal center and mode** – where home is.
12. **Meter, tempo and bar count** – how musical time is measured.
13. **Chord map and harmonic rhythm** – which chord occupies which bar or beat.
14. **Phrase goal** – whether the section continues, pauses or aims for closure.
15. **Melodic and voice-leading intent** – what the independent lines should do.
16. **Arrangement and energy plan** – who plays and how texture changes.
17. **Evidence standard** – what can be checked from the chord map, and what requires listening/transcription.

13.2 Worked specification: Theme A, version 1

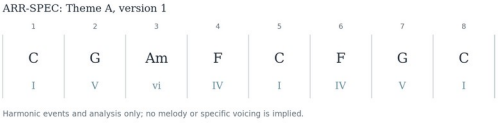


FIGURE 34 · Eight explicitly located harmonic events.

Tonality: C major. Meter: 4/4. Tempo: 96 BPM. Length: 8 bars. Harmonic rhythm: one chord per bar. Primary sound: piano. The written framework leaves melody unspecified; explore its musical realization in the companion Interactive Lab.

Bars	Chords	Functional reading	Intended phrase behavior	Texture
1–4	C–G–Am–F	I → V → vi → IV	Opening four-bar group, continuing without a claimed cadence	Solo piano; light sustained texture
5–8	C–F–G–C	I → IV → V → I	Closing four-bar group; potential authentic cadence at bars 7–8	Maintain piano, optionally add restrained bass in 5–8

The symbol | separates bars, not simultaneous chords. There are **exactly eight chords occupying eight bars**. The second four-bar group includes an explicit V → I motion at the end, unlike the first group. Whether it produces a stronger *audible* arrival depends on the melody, metric placement, and phrasing of the actual realization.

Compiled audio prompt (illustrative, not machine-enforced):

> Instrumental, piano-led, C major, 4/4 at 96 BPM. Eight bars, one chord per bar: C | G | Am | F | C | F | G | C. Keep bars 1–4 open and bars 5–8 directed toward a clear ending on C. Mostly stepwise melodic motion, connected inner voices, simple piano texture. Make the final G-to-C arrival sound like a phrase ending. Avoid adding an unrelated chord after the last bar.

What can be checked on paper: key, chords, harmonic rhythm, planned textural entries, number of bars. **What must be checked in audio:** actual pitches, realized duration, cadential hearing, voice leading and whether the generation obeys the section boundary.

13.3 Minor-key comparison: eight bars in E minor



FIGURE 35 · B7 is V7 in E minor; D♯ is the leading tone.

This supplementary example prepares later chapters for applied chords and minor-key dominant function.

Key: E minor. **Meter:** 4/4. **Tempo:** 92 BPM. **Length:** eight bars, one chord each.

Bars 1–4 **can** form a first phrase ending in a half cadence if musical phrasing actually closes on B7 at bar 4. Bars 5–8 **can** close with an authentic cadence on B7→Em, provided the melody and rhythmic articulation create an ending. The dominant B7 includes D♯, a raised leading tone in E minor. There is **no claim of a completed cadence based on the chord names alone**.

Comparison: D major in E minor is ♭VII, not V; F major in A minor is VI, not ♭VI. The previous versions that confused these analyses are superseded by this example.

13.4 ARR-SPEC as a controlled diagnostic

Use a three-part record, not an unsupported quality claim:

Intended	Observed in audio	Next change
Eight distinct harmonic bars	Record what actually happened	Rewrite section-local bars if needed
V→I harmonic close	Hear/transcribe whether G→C occurred and feels terminal	Adjust ending or use symbolic conditioning where available
Mostly stepwise melody	Record melodic contour	Change melodic instruction alone
Bass enters in second four-bar group	Check actual instrumentation	Clarify entry timing alone

Change **one variable at a time** during comparison. This avoids confusing a harmony correction with a simultaneous orchestration or tempo change. Save the initial prompt and output as the baseline.

13.5 Forward movement

The same harmonic framework can now be **reharmonized** rather than replaced. Level 3 will add sevenths, borrowed chords, secondary dominants and voicing choices while recording which structural parts of Theme A remain unchanged. Level 4 can expand its formal length and texture; Level 5 will test generation, diagnosis and production handoff.

Book and lab: This chapter explains the theory and written arrangement specification. The companion Interactive Lab provides chapter-aligned opportunities to explore and evaluate the concepts through interaction. A written specification is not proof of an audio result.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Arrangement specifications assign instruments, entrances, roles and density across sections.

2 · FROM THEORY TO PROMPTING

State the behavior and bar range of each instrument rather than listing instruments only.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Arrange a 16-bar instrumental study in 4/4. Piano introduces the
harmony in bars 1–8; bass enters at bar 9 with a supportive
repeating figure. Keep the harmonic plan unchanged and let the
texture become fuller in the second section.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Bars 1–8" and "bar 9" specify entrances; "supportive repeating figure" describes the bass role.

4 · GUIDED VARIATIONS

A. Move bass entrance to bar 5 without changing the harmony.

B. Replace bass with cello and retain its musical role.

C. Reduce rather than increase second-section density.

5 · YOUR TURN

Write a two-section arrangement timeline with instrument-specific roles.

6 · LISTEN, EVALUATE & REVISE

Verify entrances and density changes at the requested bars, not merely instrument presence.

CHAPTER 14: EXTENSIONS AND ALTERATIONS

Level 3: Color and Chromaticism. Continue the eight-bar **Theme A harmonic framework** from Chapters 6.5, 7, 11–13. The companion application, not the printed chapter, provides interactive playback.

14.1 From triads to seventh chords

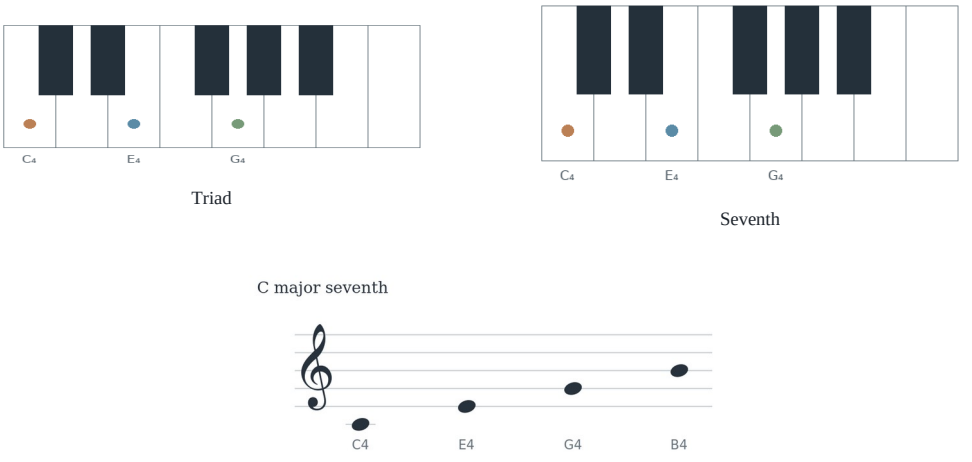


FIGURE 36 · Four chord tones: C–E–G–B.

A triad contains a root, third, and fifth. A **seventh chord** adds a seventh above the root. An **extension** adds a ninth, eleventh, or thirteenth (often omitting other notes in practical voicings). A chord symbol names a harmonic possibility, not every pitch that must appear in every instrument.

Chord	Spelled chord tones	Simple explanation
C	C–E–G	Major triad: stable reference harmony
Cmaj7	C–E–G–B	Adds a major seventh
Cmaj9	C–E–G–B–D	Adds a ninth (D)
Dm7	D–F–A–C	Minor seventh chord
G7	G–B–D–F	Dominant seventh with tritone B–F
G9	G–B–D–F–A	Adds the ninth A
G13	G–B–D–F–A–C–E (theoretical stack)	Includes the 13th E; real voicings often omit the fifth, ninth or eleventh
G7(b9)	G–B–D–F–A♭	Chromatically lowered ninth; its resolution must be evaluated in context

Important: The word *extension* does not mean an instrument must play all the listed pitches at once. Jazz pianists and guitarists routinely omit a root or fifth when other instruments supply it.

A ninth is a compound second, an eleventh a compound fourth, and a thirteenth a compound sixth, counted above the chord root. These names describe harmonic extensions, **not instructions to include every lower extension**. In G13, for example, the C (11th) may be omitted to avoid its semitone conflict with B (3rd).

14.2 Theme A, version 2 – color without changing the roots



FIGURE 37 · Illustrative extended chord colors, with roots preserved.

Theme A original: **C | G | Am | F | C | F | G | C** (C major, 4/4, 96 BPM, one chord/bar).

Reharmonized chord-quality pass: **Cmaj7 | G7 | Am7 | Fmaj7 | Cmaj9 | Fmaj7 | G9 | Cmaj9**.

What changed: chord quality and available upper notes. **What did not:** the eight roots, meter, tempo, harmonic rhythm, and formal length. The last G9→Cmaj9 supports dominant-to-tonic motion but is not by itself proof of an audible authentic cadence.

14.3 Alterations are context-dependent

An altered note modifies a chord tone or extension. For example, G7(b9) contains A♭ rather than A. In the key of C, A♭ is chromatic; it can intensify dominant color. It does not automatically guarantee a particular resolution in a generated recording.

Controlled generation exercise: Render these as **two separate prompts**, holding style, instrumentation, tempo, meter and bar length constant. Do not ask the audio generator for two versions within one prompt.

- **Prompt A (reference):** "C-major instrumental piano, 96 BPM, 4/4, eight bars, one chord per bar: C | G | Am | F | C | F | G | C."
- **Prompt B (color pass):** "C-major instrumental piano, 96 BPM, 4/4, eight bars, one chord per bar: Cmaj7 | G7 | Am7 | Fmaj7 | Cmaj9 | Fmaj7 | G9 | Cmaj9."

This is a **multi-chord reharmonization comparison**, not a single-variable chord experiment; the models may also vary other musical properties. Compare recorded audio rather than assuming either prompt was honored.

Diagnostic: Transcribe or inspect the output. Did the extensions sound? Were the underlying chords and bar count maintained? If not, do not claim the system followed the specification.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Chord extensions add specified pitch classes above a triad; alterations must be spelled and heard in context.

2 · FROM THEORY TO PROMPTING

Use explicit chord labels and, where possible, list critical pitch classes.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Compose a slow C-major piano passage that contrasts a basic C
major triad (C–E–G) with Cmaj7 (C–E–G–B). Let the added B be
audible in the second harmony while keeping the tonic C stable.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Cmaj7" adds the major seventh B; it is not the same as C7 with B-flat.

4 · GUIDED VARIATIONS

A. Replace Cmaj7 with C7 and identify the changed seventh.

B. Compare Dm and Dm7 in a stable C-major context.

C. Preserve the chord tones but change the voicing.

5 · YOUR TURN

Write a comparison prompt correctly distinguishing two seventh-chord types.

6 · LISTEN, EVALUATE & REVISE

Confirm the relevant seventh by listening and transcription if possible; a label is not proof of realization.

CHAPTER 15: MODAL INTERCHANGE

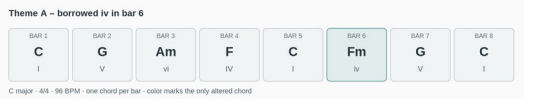
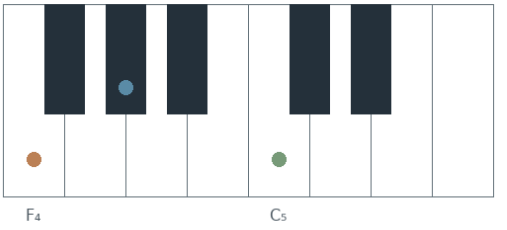


Figure 4. Borrowed minor subdominant in C major



15.1 What borrowing means

Modal interchange takes a chord from a *parallel* mode: the mode has the **same tonic** but a different pitch collection. C major and C minor are parallel; C major and A minor are **relative**, not parallel. Borrowed chords do not necessarily establish a new key.

In C major, the chord **Fm (F–A♭–C)** can be borrowed from C minor: it is **iv**, compared with F major (F–A–C), **IV**, in C major. The one-note change A → A♭ provides a clear audible difference.

Other familiar colors in C major include A♭ major (♭**VI**) and B♭ major (♭**VII**). Source collections and analytical practices differ; when precision matters, identify the specific source scale or mode rather than asserting every chord has one unique source.

15.2 Theme A, version 3 – a single borrowed chord

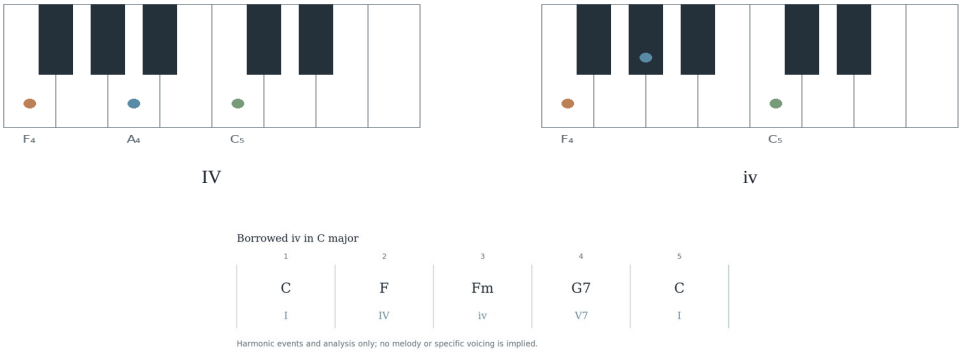


FIGURE 38 · F major changes to F minor through A → A♭.

Keep the original eight bars and change **only bar 6**:

C | G | Am | F | C | Fm | G | C.

The subsequent G → C remains V → I in C. This is a controlled experiment in chord quality, **not a claim that the passage modulates to C minor**.

15.3 Mode names versus modal centers

The book's introductory modal roots remain **C Ionian, D Dorian, E Phrygian, F Lydian, G Mixolydian, A Aeolian, B Locrian**. They use the same white-key pitch collection but establish different centers. A modal tonic cannot be proven merely by starting the notes on that pitch; melodic emphasis, bass, and harmonic context must support it.

For a separate scale-color comparison, **E Phrygian** uses E–F–G–A–B–C–D. **E Phrygian dominant** uses E–F–G♯–A–B–C–D. These are different collections; the raised third G♯ changes the tonic harmony. Both can be explained through Western pitch names and semitone patterns. Do not equate either with a complete non-Western modal tradition.

Prompt: "Same eight bars, C major, 96 BPM, piano. Compare bar 6 F major with F minor; preserve every other chord, the bar count, tempo and arrangement."

Diagnostic: Determine whether bar 6 really contains A♭; distinguish a borrowed chord from a new tonic.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Modal interchange borrows harmony from a parallel mode while maintaining a home key.

2 · FROM THEORY TO PROMPTING

Name both the prevailing key and the borrowed chord and its source.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
In a C-major instrumental passage, introduce an F-minor chord
borrowed from parallel C minor, then return to C major. Let A-flat
within F minor be discernible, while keeping C as the overall
tonal center.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"F minor" contains F–A-flat–C; "parallel C minor" identifies the borrowing source.

4 · GUIDED VARIATIONS

A. Compare borrowed Fm with diatonic F major.

B. Use B-flat major as a contrasting borrowed chord in C major.

C. Keep Fm but place it at a different phrase position.

5 · YOUR TURN

State a borrowing source and the changed note(s) in a new example.

6 · LISTEN, EVALUATE & REVISE

Listen for the altered scale degrees and continued home-key identity; borrowing does not necessarily mean modulation.

CHAPTER 16: SECONDARY DOMINANTS AND TONICIZATION

16.1 Dominant of a chord other than I

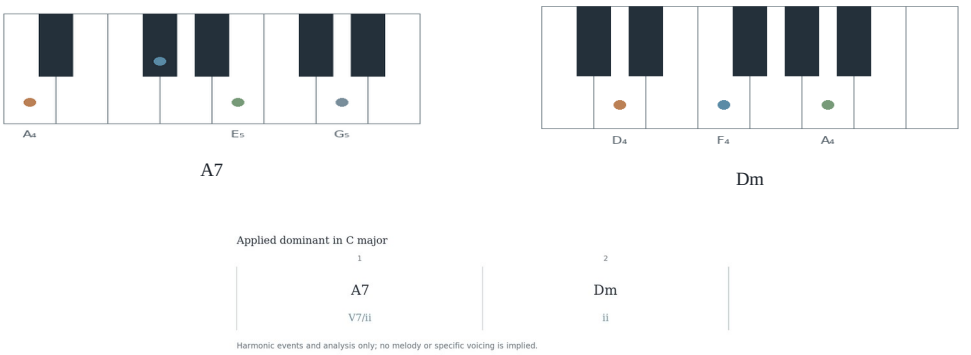


FIGURE 39 · A7 is V7/ii; Dm is ii.

A **secondary (applied) dominant** briefly makes a diatonic chord other than the main tonic sound like a local goal. In C major, **A7 (A–C♯–E–G)** moving to **Dm (D–F–A)** is **V7/ii → ii**. C♯ is the leading tone to D. A7 is built on scale degree 6 in C, **not** on scale degree 2.

By comparison, **G7 → C** in C major is the **primary** V7 → I, not a secondary dominant. In A minor, E7 → Am is likewise the primary V7 → i; its G♯ is a raised leading tone of minor-key harmony.

16.2 Theme A, version 4 – one applied dominant

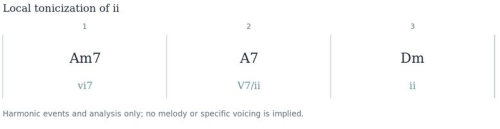


FIGURE 40 · C♯ in A7 prepares D minor.

Original bars 3–4 are **Am | F**. To demonstrate V7/ii → ii clearly without changing eight bars, compare the following **independent variation**:

C | G | A7 | Dm | C | F | G | C.

In bars 3–4, A7 → Dm is **V7/ii → ii**. This variation changes two original chords; therefore it must **not** be described as a one-chord or one-variable sweep. Treat the *pair* as a single predesigned harmonic intervention, or compare it against a matching control sequence **C | G | Am7 | Dm | C | F | G | C**, where bar 4 is fixed and only bar 3 changes (Am7 → A7). This isolates C → C♯ in the third of the A chord while retaining A, E and G.

Best controlled comparison:

- Control: C | G | **Am7** | Dm | C | F | G | C

- Test: C | G | **A7** | Dm | C | F | G | C

Only bar 3 differs: **Am7 (A–C–E–G)** becomes **A7 (A–C♯–E–G)**. The changed third C → C♯ creates an applied leading tone to D. This is a cleaner one-pitch theoretical comparison; independent renders may nonetheless vary in performance.

16.3 Tonicization is not modulation

A secondary dominant can create a brief local emphasis without changing the overall tonic. Establishing a new key generally requires more sustained tonal evidence, often including a convincing cadence in the new key. Do not label every V7/x → x an actual modulation.

Diagnostic: Check for the chromatic leading tone, the arrival chord, and the larger tonal context. A chord label alone is not an audio verification.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Applied dominants temporarily point toward diatonic targets; tonicization need not become modulation.

2 · FROM THEORY TO PROMPTING

Identify the home key, applied chord, target and leading-tone alteration.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create an eight-bar passage in C major. Place A7 (A–C-sharp–E–G)
directly before D minor (D–F–A), making A7 act as V7/ii.
Afterwards move back toward a C-major ending without establishing
D minor as a permanent key.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"C-sharp" leads toward D; A7–Dm can tonicize ii in C major.

4 · GUIDED VARIATIONS

A. Replace A7 with Am7 and compare the C-sharp/C-natural distinction.

B. Use D7 before G as V7/V in C major.

C. Keep A7–Dm but vary the instrumentation only.

5 · YOUR TURN

Specify a distinct applied dominant and verify its target and altered pitch.

6 · LISTEN, EVALUATE & REVISE

Check chord content and resolution; do not claim a confirmed modulation from a single applied chord.

CHAPTER 17: VOICING AND VOICE LEADING

17.1 Chord identity is not chord spacing

Chord symbol: specifies a collection or harmonic quality. **Voicing:** decides which actual notes are played, in which octave, by which instrument. **Inversion:** means a chord tone other than the root is in the bass. **Close position** and **open position** describe spacing. These must not be conflated.

C major, three written piano voicings (for demonstration or later playback):

Description	Bass to top	Meaning
Root position	C4–E4–G4	C is lowest
First inversion	E4–G4–C5	E is lowest
Second inversion	G3–C4–E4	G is lowest

The same harmonic identity can move through different inversions. A smooth connection is a voice-leading choice, not proof of a chord's function.

17.2 A correctly spelled voice-leading demonstration

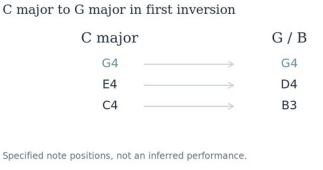


FIGURE 41 · Individual notes are given explicitly; no extra voices are invented.

Two C-major triads: **C4–E4–G4 → B3–D4–G4**. The second collection is **G major in first inversion (G/B)**, reordered from bass to top as B3–D4–G4. The upper G is retained; C→B and E→D move by step. This demonstrates one possible parsimonious connection, not a requirement for every genre.

17.3 Theme A – no automatic voicing claims

For bars 7–8 (**G→C**), the composer can request common-tone retention and stepwise inner voices. Without a notated arrangement or transcribed audio, the book cannot verify what inversion or voice leading the model rendered.

Prompt: "In C major, 96 BPM, piano-led eight-bar arrangement. Use connected chord voicings; retain common tones where practical and avoid unnecessary inner-voice leaps. Do not change the specified harmony."

Diagnostic: Extract or transcribe notes before claiming that voice-leading requirements were met. Restrictions on parallel fifths/octaves are stylistic in strict common-practice counterpoint, not universal prohibitions across music.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Voicing distributes chord tones across registers; voice leading specifies movements between them.

2 · FROM THEORY TO PROMPTING

Make bass, inner voices and melody explicit when requesting a change of voicing.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create two piano versions of C major followed by F major. In the
first, use close-position chord voicings in the middle register;
in the second, spread the chord tones across a wider range while
keeping the chord sequence unchanged.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Close-position" and "spread" describe distribution, not a change of harmonic identity.

4 · GUIDED VARIATIONS

A. Keep close voicing but change the top melodic note.

B. Use a sustained common tone across the two chords.

C. Compare root-position and inversion while preserving chord labels.

5 · YOUR TURN

Describe a voicing transformation without changing the progression.

6 · LISTEN, EVALUATE & REVISE

Check which pitches and registers actually sound; an overall rich texture is insufficient evidence.

CHAPTER 18: PARALLEL HARMONY AND PLANING

18.1 Moving a chord shape together

In **planing**, chord voices move in corresponding directions, often preserving a recognizable chord shape. It can emphasize sonority and motion more than tonal function. In **chromatic planing**, a chord shape may be transposed by the same semitone distance in every voice; in **diatonic planing**, the pitches remain within a chosen scale, so exact interval quality may change.

Simple example: C major (C–E–G) → D major (D–F♯–A) moves each pitch up a major second: exact parallel triads. But D major adds F♯, outside C major; therefore this is **not diatonic planing within C major**.

By contrast, C major (C–E–G) → D minor (D–F–A) keeps all notes within C major but changes the internal chord quality; it illustrates **diatonic** parallel movement, not exact chromatic planing.

18.2 Theme A: a contrasting bridge experiment

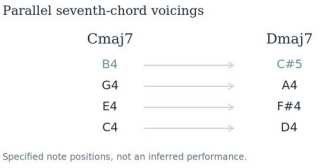


FIGURE 42 · Matching voices move by the same interval.

Theme A remains the stable eight-bar reference. Planing should be taught as a **distinct reharmonization study**, not silently inserted and then analyzed as ordinary I–V–vi–IV function.

Planing study, four illustrative sonorities: Cmaj7 → Dmaj7 → Emaj7 → F♯maj7. For a literal parallel example, write the voices from low to high as **C4–E4–G4–B4 → D4–F♯4–A4–C♯5 → E4–G♯4–B4–D♯5 → F♯4–A♯4–C♯5–E♯5**. Every corresponding voice rises by two semitones at each change; the major-seventh chord quality remains constant. This is non-diatonic to C major and should not be described as an ordinary functional progression in that key.

Prompt: "Instrumental impressionist-style piano passage, parallel major-seventh chord shapes rising in whole steps. Treat the motion as sonorous color rather than a conventional V–I cadence."

Diagnostic: Look for parallel movement in individual voices, not merely a sequence of chord symbols. The absence of common-practice functional syntax is an artistic choice, not a deficiency.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Parallel harmony or planing moves chord shapes together, with different implications for exact interval preservation.

2 · FROM THEORY TO PROMPTING

Specify whether chord quality or parallel interval structure stays constant.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Compose a short piano texture using a fixed major-triad shape
moved upward in parallel through three successive chord positions.
Keep the voicing pattern and rhythmic durations as similar as
possible.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Fixed major-triad shape" requests parallel chord quality; exact voice motion may still require a score.

4 · GUIDED VARIATIONS

A. Compare chromatic movement with diatonic movement.

B. Use parallel minor triads instead.

C. Keep the parallel motion but alter the rhythmic spacing.

5 · YOUR TURN

Write two prompts that distinguish exact planing from looser chordal parallelism.

6 · LISTEN, EVALUATE & REVISE

Compare actual note-to-note motion; do not infer strict planing from a similar-sounding chord sequence.

CHAPTER 19: THE LEVEL 3 COMPOSITION SPECIFICATION

19.1 What Level 3 adds

Level 1 established the notes, chords, rhythm and eight-bar form. Level 2 explained phrase direction and conditional cadences. Level 3 adds color while preserving an identifiable reference framework. **Do not combine every technique at once and claim that one feature caused the result.**

Reference (Theme A): C | G | Am | F | C | F | G | C.

Notation: Slash marks in this table delimit successive bars, not inversions. Every variation is in 4/4, 96 BPM, exactly eight bars, with one chord per bar.

19.2 One experiment, one question

- **Extensions:** Do the added sevenths/ninths appear in the actual audio?
- **Borrowed iv:** Is A♭ present in bar 6, rather than A?
- **Applied dominant:** In experiment E, is C♯ present in A7 before Dm, while experiment D retains C natural in Am7?
- **Voicing:** Are individual voices connected as specified, or merely chord names approximated?
- **Planing:** If used in a separate passage, do voices truly move in parallel?

19.3 Specification template

Structural constants: key/tonal center, meter, tempo, eight-bar length, harmonic rhythm, basic instrumentation. **One change under test:** specify the changed bar/chord/voicing or a declared full-pass reharmonization. **Predicted audible distinction:** identify an actual pitch or voice movement. **Evidence:** listening plus transcription when needed. **Decision:** keep, revise, or reject; do not infer compliance from prompt text alone.

Forward link: Level 4 can transform the eight-bar idea into a larger form through development, tonal planning and instrument entrances. The interactive edition supplies playable keyboard demonstrations and A/B auditioning; the printed manuscript supplies accurate specifications and explanations.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

A Level 3 composition specification joins harmony, voicing, form and musical evidence.

2 · FROM THEORY TO PROMPTING

Organize complex requirements as separately checkable musical fields.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Compose a 16-bar instrumental piece in C major, 4/4 at 96 quarter-
note BPM. Introduce a contrasting middle eight bars, preserve a
clear primary melodic line, and finish with a perceptible
dominant-to-tonic arrival. Keep the sectional plan explicit.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Middle eight bars" defines form; "dominant-to-tonic arrival" sets a harmonic objective that must be verified.

4 · GUIDED VARIATIONS

A. Change the tonal center but keep the form.

B. Keep the form and change the ending cadence candidate.

C. Replace the lead instrument while preserving all section boundaries.

5 · YOUR TURN

Build a compact Level 3 specification with independent validation questions.

6 · LISTEN, EVALUATE & REVISE

Assess the bar plan, harmony and melodic identity separately; record unsupported claims as unverified.

CHAPTER 20: MODULATION AND MUSICAL FORM



Illustration. Theme A: harmonic function across the established framework

Level 4 – Architecture and Motion | Western music theory

Beginner checkpoint: a new chord is not necessarily a new key

A **tonic** is the note or harmony perceived as a tonal center. A **tonicization** briefly emphasizes a chord as a local goal. A **modulation** establishes a different key over a more substantial musical span. A chord outside the original scale does not, by itself, demonstrate modulation; the surrounding melodic, harmonic, rhythmic, and formal context matters. This chapter describes the *written tonal plan*, not the sound of an audio render that has not been examined.

In C major, **G** normally functions as V. If a later passage convincingly establishes G major, the same G chord functions as I. This change in *context*, not the chord symbol alone, is central to modulation.

20.1 Start with the established eight-bar Theme A

Theme A, unchanged: C | G | Am | F | C | F | G | C. Each symbol occupies one measure of 4/4 at **quarter note = 96 BPM**. The Roman numerals in C major are I | V | vi | IV | I | IV | V | I. The final G–C is a potential authentic-cadence harmonic pattern, not proof of a completed phrase-ending cadence without a melody and rhythmic articulation.

We will develop Theme A into a 40-bar piece with five eight-bar sections. The harmonic framework is kept distinct from a finished melody, which belongs to the companion interactive application.

20.2 Three ways to reach a new key

Direct modulation: One phrase ends in C major and the next begins clearly in G major without a common-chord bridge. A direct change may be effective, but the new section must still establish G as tonic.

Pivot-chord modulation: A chord belongs to both old and new keys. In **C major**, Am is vi; in **G major**, Am is ii. The continuation **Am | D7 | G** permits the following analysis: **C: vi = G: ii | V7 | I**. D7 = D–F♯–A–C; **F♯** is the leading tone to G. The pivot becomes persuasive when further music sustains G as the tonal center.

Common-tone modulation: A note belonging to both the old and new harmonies provides continuity across a key change. Sharing a tone is not, by itself, proof that the listener hears a new tonic.

Other techniques, including chromatic-mediant shifts and sequential modulations, extend these principles. A chromatic-mediant chord relationship and a demonstrated modulation are different analytical claims; do not confuse them.

20.3 The five-section, 40-bar composition map
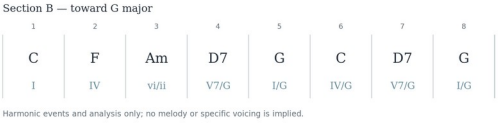


FIGURE 43 · Bars 17–24; D7 contains F♯ and prepares G.

How to read bars 17–24: Bars 17–18 prolong the C-major context. Bar 19 **Am** can be heard both as vi in C and as ii in G. Bar 20 **D7** is V7 of G, introducing F♯. Bar 21 **G** is the target tonic. Bar 22 **C** can be heard as IV in G. Bars 23–24 **D7 → G** provide another V7 → I motion in G. This is a *plausible notated modulation plan*, not a guarantee of a perceptually convincing modulation without phrasing, melody, and performance.

How to read bars 33–40: Bar 33 C resumes the original C-major harmonic framework. The return is **not** a strict pivot-chord modulation merely because G belongs to both keys. The repeated C-major pattern and especially the **G7 → C** at bars 39–40, with **F natural**, help reestablish C as the governing center. The effectiveness of this return must be assessed from the full music.

Arithmetic check: Five sections × eight bars = **40 bars**. Each bar has four quarter-note beats, for **160 beats**. At a steady quarter note = 96 BPM, the notated duration is **100 seconds (1 minute 40 seconds)**, excluding holds, silence, rubato, and pickups. Every listed section has eight chord events, one per bar.

20.4 How modulation differs from harmonic color



FIGURE 44 · Am: vi in C / ii in G; D7–G establishes a G-directed motion.

At Level 3 the borrowed **Fm** in a C-major passage introduced A♭ without requiring a new tonic. At Level 4, the pair **D7 → G** introduces **F♯** and participates in a prolonged G-major area. The appearance of a chromatic pitch is evidence for a particular *harmonic possibility*, but tonal organization over multiple bars is the test for modulation.

Controlled written comparison: Compare the B section above with an alternative where D7 is replaced by Dm7. The change removes F♯; it also changes the D chord's dominant quality. Keep all other chord symbols and bar durations fixed in the written comparison. This is an analytical comparison of a key-confirming device; it does not guarantee identical arrangements from independent AI generations.

20.5 Introducing musical form without overclaiming melody

Form is the organization of musical ideas over time. Here, A denotes the original eight-bar harmonic identity; A′ changes the surface arrangement while retaining the progression; B introduces a different tonal direction; C confirms the new center; A″ returns to the original harmonic identity with a stronger dominant-seventh cue. These labels describe **harmonic and arrangement sections**, not verified melodic themes. A full thematic analysis requires the melody and phrase design supplied later in the interactive edition.

Working prompt specification, not a guaranteed command: "Instrumental chamber-pop, quarter note = 96 BPM, 4/4, five eight-bar sections. Preserve bars 1–16 in C major using C–G–Am–F–C–F–G–C. Bars 17–24 move toward G major through Am–D7–G and reinforce D7–G; bars 25–32 center on G major. Bars 33–40 return to the original C-major chords, with G7–C in the final two bars. Sustain the specified harmonic rhythm of one chord per bar."

Diagnostic checklist: (1) Are there exactly forty bars? (2) Is F♯ present in D7 at the intended places? (3) Does G establish tonal gravity across bars 21–32? (4) Does F natural in G7 support the return to C? (5) Are proposed cadences supported by actual melodic and rhythmic endings? Only audio, notation, or transcription can answer the performance questions.

Transition to Chapter 21: A tonal map states *where* the composition goes. The arrangement timeline will specify *what changes in the texture* as that journey unfolds.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Modulation requires an established new tonal center; formal sections describe large-scale structure.

2 · FROM THEORY TO PROMPTING

Specify a pivot region, destination key and audible establishment of that key.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create a 24-bar instrumental piece beginning in C major. During
the middle section, move toward G major using D7 as the dominant
of G. Establish G as a credible local tonic before shaping the
closing section.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"D7" contains F-sharp, the leading tone to G; an actual modulation requires more than this single chord.

4 · GUIDED VARIATIONS

A. Replace the new key G major with a temporary tonicization only.

B. Preserve the keys and move the transition to a later section.

C. Change instrumentation without changing tonal destinations.

5 · YOUR TURN

Write a modulation request identifying departure, transition and arrival evidence.

6 · LISTEN, EVALUATE & REVISE

Listen for sustained new-key evidence; a single altered chord is not sufficient.

CHAPTER 21: THE TIMELINE, NOT THE EQUIPMENT LIST



Illustration. Forty-bar formal and arrangement timeline

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Beginner checkpoint: the same instruments can make different arrangements

Instrumentation names the sound sources: piano, bass, strings, drums. **Orchestration** assigns musical material, register, articulation, and responsibility to those sources. **Texture** describes how simultaneous parts interact and how dense they are. **Arrangement** organizes those parts across the piece. A list of five instruments does not tell a player when to enter, what to play, or when to stop.

Theme A now has a **40-bar harmonic form** from Chapter 20. This chapter specifies its changing texture without altering the harmony or claiming that a model will reproduce bar-accurate entrances automatically.

21.1 Five eight-bar textural states



FIGURE 45 · Harmonic identity is independent of orchestration.

Bars	Harmony	Texture and behavior	Intended relative energy
1–8	C-major Theme A	Solo piano plays sparse broken triads; leave clear space between gestures	Low
9–16	C-major Theme A	Add pizzicato bass on chord roots; piano continues, slightly fuller voicing	Medium-low
17–24	Pivot into G major	Cello sustains a restrained counterline; piano marks the new D7→G pulls without increasing tempo	Medium
25–32	G-major center	Bass continues; brushed drums enter; strings widen the register and emphasize the local tonic	High relative to earlier sections
33–40	Return to C major	Thin the texture at bar 33, then rebuild; sustain the final C sonority after the bar-39 G7 preparation	Low → high → settle

Note: The five states are intentionally relative. "High energy" may mean denser counterpoint, a higher register, stronger dynamics, or more rhythmic activity even when the BPM never changes.

21.2 Instrument-entry schedule

Instrument	1–8	9–16	17–24	25–32	33–40
Piano	Sparse broken chords	Moderate voicings	Articulate harmonic pivots	Fuller voicings	Sparse then full
Bass	Rest	Pizzicato roots	Pizzicato with occasional approaches	More active, still supportive	Drops out briefly; returns at bar 37
Cello	Rest	Rest	Long counterline, sustained notes	Sustained countermelody	Withdraws at 33; returns at 37
Brushed drums	Rest	Rest	Rest	Light pulse	Reenter at 37

The word "counterline" specifies a secondary melodic role, not a fully notated countermelody. Explore the distinction through the companion Interactive Lab and verify any sounding realization.

21.3 Registral and harmonic choices

Register changes perception without changing the chord. A C-major triad can be placed low and close for concentrated weight, or spread across registers for more space. This does not change the chord's Roman numeral. Similarly, **G7→C** can be given clearer functional direction by placing F natural so it resolves toward E in a chosen voice, but the chord symbols alone do not establish that voice-leading event.

A concrete **proposed** inner-voice gesture for the final two bars is **F4→E4** (seventh of G7 resolving toward the third of C). The passage does not yet include a complete composed voice-leading score, so treat this as an option to implement, not a transcription of existing music.

21.4 Arranging transitions rather than stacking adjectives

Instead of asking for "epic cinematic orchestra, huge dramatic build," specify which instrument enters in which bar group and what its role becomes. Keep the tonal plan separate from the energy plan. If a generation changes harmony and orchestration together, the listener cannot attribute the result to one variable. For teaching purposes, compare written specifications that hold harmony constant while changing only the texture schedule.

Controlled pair:

Version A – static texture: "All 40 bars: sparse piano, no additional instruments. Follow the Chapter 20 harmonic map at quarter note = 96 BPM."

Version B – scheduled texture: "Use the identical 40-bar harmonic map and tempo. Piano alone at 1–8, bass from 9, cello from 17, brushed drums from 25; thin at bar 33, rebuild at 37."

These are intended constraints. If an audio generator fails to maintain them, the resulting outputs cannot be treated as a perfectly controlled experiment; document the deviations and compare the observable results.

21.5 ARR-SPEC update: from phrase to composition

Title: Theme A – tonal journey (working harmonic study). **Duration:** 40 bars of 4/4 at quarter note = 96 BPM (nominal 1:40). **Tonal plan:** C major → G major → C major. **Form:** A–A′–B–C–A″, five eight-bar sections. **Harmonic rhythm:** one chord per bar. **Arrangement:** use the entry schedule above. **Compositional status:** harmonic form and orchestration intentions only; melody, expressive timing, audio evidence, and finished cadences are not supplied in the printed source.

Verify independently: Map the generated audio's bar boundaries first. Then inspect chord identity and tonal direction. Finally evaluate instrumentation, entries, dynamics, and register. If meter/tempo drift prevents bar-accurate measurement, report the drift explicitly instead of re-labeling the audio to fit the plan.

21.6 Handoff into Level 5

The specification now separates three layers: **musical structure** (key areas and harmonic events), **arrangement** (instrumental behavior over bars), and **evidence** (what the finished sound actually contains). Level 5 translates these into generation campaigns, targeted revisions, evaluation records, and DAW decisions. Platform-specific UI controls should be documented in a separate, version-checked reference section rather than presented as permanent principles of music theory.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Arrangement timelines specify musical events over time, not equipment inventories.

2 · FROM THEORY TO PROMPTING

Describe instrument entrances, exits and changing roles at bar positions.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
For a 40-bar instrumental arrangement, keep piano throughout;
bring in bass at bar 9, cello at bar 17 and light percussion at
bar 25. Reduce texture at bar 33 while keeping the main harmony.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

Each entrance is mapped to a bar; the timeline defines behavior, not just an instrument list.

4 · GUIDED VARIATIONS

A. Delay the cello to bar 25 and describe the changed arc.

B. Remove percussion while retaining all other entrances.

C. Keep entries but reverse the density trajectory.

5 · YOUR TURN

Write a three-instrument timeline with explicit roles and positions.

6 · LISTEN, EVALUATE & REVISE

Check audible entrances and exits against the timeline rather than assumed orchestration.

PART VI: LEVEL 5 – PROFESSIONAL META-ARRANGEMENT

CHAPTER 22: SPECIFICATION BEFORE GENERATION

Level 5 – Professional Meta-Arrangement | Western music theory

22.1 From musical plan to production brief

A musical **specification** records intentions before sound is generated. It is not a score and does not guarantee the generated sound. A professional specification makes each intended feature testable: where it should occur, what musical evidence would confirm it, and what counts as a deviation.

The Level 4 study is the continuing example. **Theme A** is a harmonic framework, not yet a composed melody. It comprises **40 bars of 4/4 at quarter note = 96 BPM**, nominally **100 seconds**. The five sections each occupy eight bars. The harmonic rhythm is **one chord per bar**.

22.2 The invariant harmonic map



FIGURE 46 · The structural harmonic plan must remain distinct from generated sound.

Why the key change is plausible: At bar 19, Am is vi in C and ii in G; at bar 20, D7 introduces F♯ and prepares G. D7–G occurs again at bars 23–24. Bars 25–32 continue in G. At bars 39–40, G7–C supports return to C. These harmonic events are **potential** tonal arrivals until actual phrasing, melody, and sound confirm their effect.

22.3 Arrangement map

Piano spans bars 1–40, beginning sparse and becoming fuller in the middle. Bass enters at bar 9, cello at bar 17, and brushed drums at bar 25. The texture thins at bar 33 and rebuilds from bar 37. At bars 39–40, the seventh of G7 (F natural) *may* resolve down to E within an inner voice; that voice is an intended detail, not a verified performance.

22.4 Three kinds of constraints

Fixed musical facts: chord names, intended notes, section boundaries, tempo and meter. **Interpretive goals:** contrast, density, harmonic direction and sense of arrival. **Production choices:** sound sources, recording texture, balance and mix treatment. Fixing a label on paper does not prove that the model realizes it in audio.

Each field needs its own verification method. Chord identity requires listening supported where useful by transcription or pitch analysis. Section timing requires beat and bar mapping. Texture requires identifying instrument roles. Affective descriptors are evaluated as listener interpretations, not objective pitch-class measurements.

22.5 Two-stage specification

Musical plan (tool-independent): "Create an instrumental five-section, 40-bar harmonic study in 4/4 at quarter note = 96 BPM. Preserve the full bar-by-bar chord map above. Establish C, move to G using Am–D7–G in the middle, sustain G, then return to C with G7–C. Use piano initially, and add bass, cello and brushed drums in the scheduled sections."

Platform adaptation (tool-dependent): Translate that brief into the fields actually supported by a chosen audio generator. Place bracketed section cues, harmonic text, exclusions, and reference media **only when documented by the selected tool**. Do not assume that typing a chord symbol forces the waveform to contain it. Retain the original harmonic map as the source of truth.

22.6 Preflight record

Record: tool and version, date, initial prompt, reference assets, settings, permissions, intended duration, key areas, chord map, orchestration plan, and acceptance criteria. If a tool cannot accept a given type of constraint, mark it as **not controllable directly** rather than treating it as honored.

Transition: Chapter 23 tests the specification with a generation campaign, distinguishing written changes from actual musical changes.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

A generation specification should be stable and independently reviewable before any audio is created.

2 · FROM THEORY TO PROMPTING

Freeze measurable musical fields and separate open preferences.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Prepare a fixed study specification: eight bars, 4/4, quarter note
= 96 BPM, C major, piano leading with bass entering at bar 5, and
a C-major ending. Generate from this specification and record
every field that could not be confirmed.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

Bar count, meter, tempo, tonic and bass entrance are separate requirements.

4 · GUIDED VARIATIONS

A. Change only bass entrance timing.

B. Change only the key while preserving all other fields.

C. Replace an adjective with a measurable harmonic instruction.

5 · YOUR TURN

Create a specification sheet with required, optional and unverifiable fields.

6 · LISTEN, EVALUATE & REVISE

Record how each field was tested and which outputs remain inconclusive.

CHAPTER 23: THE GENERATION CAMPAIGN

Level 5 – Professional Meta-Arrangement | Western music theory

23.1 Why a campaign instead of a lucky take?

A single generation can sound convincing while missing a critical harmonic event. A **generation campaign** compares several attempts against the same written specification. One controlled change at a time makes differences easier to diagnose, although a stochastic model can change unrelated properties as well.

23.2 Freeze the baseline

Label the Chapter 22 prompt **B0**. Save the exact text, supported settings, audio file or link, date, and intended 40-bar map. First check whether the output is instrumental, whether its pulse is near 96 quarter-note BPM, and whether its length and formal boundaries support a meaningful 40-bar reading. If no reliable bar grid can be established, label downstream bar-specific judgments **unverified**.

23.3 A three-pass campaign



FIGURE 47 · A written baseline is not evidence of audio compliance.

Pass A – harmonic identity: Generate several B0 outputs without changing the written prompt. Determine whether C major is established at the start, whether G becomes convincing across bars 21–32, and whether the final G7–C supports return. Repeating the same prompt estimates natural output variability; it is not a guarantee of consistent harmonic compliance.

Pass B – one written musical variable: Take the Chapter 20 B section and change **D7 to Dm7** at bars 20 and 23 in an alternative *specification*. The D-chord quality changes and F♯ is replaced with F natural; the expected dominant pull toward G becomes weaker. This is one **chord-symbol substitution type**, applied to two designated bars, not a one-pitch intervention or a perfectly isolated audio experiment. Keep the other thirty-eight chord events, tempo, meter and instrumentation instructions unchanged.

Pass C – one arrangement variable: Restore the original harmonic specification and compare static piano texture with the Chapter 21 scheduled instrument entries. The theoretical question is whether the same harmonic events acquire a different perceived formal shape when the arrangement changes.

23.4 Evaluation rubric

Field	What to inspect	Decision
Form	Can five eight-bar spans reasonably be mapped?	Pass / partial / fail / unverified
Harmony	Are the specified chords present at corresponding positions?	Pass / partial / fail / unverified
Tonal center	Is G established rather than briefly tonicized?	Pass / partial / fail / unverified
Voice leading	Is the proposed F → E resolution audible at the return?	Pass / partial / fail / unverified
Orchestration	Do instrument roles and entrances approximate the timeline?	Pass / partial / fail / unverified
Expressive result	Does the piece achieve the intended sense of direction?	Document listening judgment and context

A transcript, chromagram, pitch tracker, or stem analysis is supporting evidence, not an infallible authority. Chord classifiers can misread inversions, harmonic overtones and dense mixes. Musical listening and analytic checks should be used together.

23.5 Cull and document

Keep candidates whose important musical events are supported by evidence. **Revise** when a localized change might address a defect. **Reject** when core tonal direction, meter or form is irrecoverably different from the brief. Do not select a beautiful output as theoretically faithful merely because it is compelling.

Store a **Harmony Decision Record:** baseline ID; audible problem; location in bars or seconds; theoretical diagnosis; one proposed change; prediction; comparison result; decision. Make explicit where other unintended changes occurred.

Transition: Chapter 24 distinguishes prompts from controls offered in specific software versions, and explains how to use exclusions without relying on undocumented syntax.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

A generation campaign makes multiple attempts comparable through records, fixed conditions and explicit evaluation.

2 · FROM THEORY TO PROMPTING

Give each attempt a version label and a single stated change.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Generate three candidate takes from one fixed eight-bar C-major
piano specification. For every take, record the prompt version,
generation settings available, date, observed bar structure and
whether the final arrival sounds centered on C.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Fixed specification" refers to the written target; stochastic runs can still differ.

4 · GUIDED VARIATIONS

A. Compare two runs with identical written prompts.

B. Change a single tonal requirement and document the version.

C. Repeat the best candidate without silently changing settings.

5 · YOUR TURN

Design a traceable three-run experiment with a fair evidence log.

6 · LISTEN, EVALUATE & REVISE

Do not equate uncontrolled model variation with a prompt-variable effect.

CHAPTER 24: NEGATIVE, WEIGHTED, AND REFERENCE CONTROL

Level 5 – Professional Meta-Arrangement | Western music theory

24.1 A request is not a constraint guarantee

"Do not add brass" is a **negative instruction**. "Make the arrangement follow the bar map" is a **structural request**. A style-strength slider, where available, is a **software setting**. These operate differently and should not be presented as equivalent mechanisms.

Some audio-generation tools offer exclusion fields, style-strength adjustments, audio references, section editing or arrangement controls. Their names, valid ranges, availability and effectiveness can change by product, version, subscription or generation mode. The present chapter teaches the stable principle; a dated tool reference must document the actual interface.

24.2 Rank constraints by consequence

For Theme A, rank **required**: the tonic trajectory C → G → C and the intended harmonic form; **important**: one chord per bar and the entry schedule; **optional**: precise piano timbre, tape character and reverberation. If the tool cannot enforce the required material, report that limitation and consider a notation-, MIDI- or audio-conditioned workflow rather than adding adjectives indefinitely.

24.3 Negative control

A useful negative instruction is narrow and observable: "no brass section" or "no lead vocals." Avoid large lists of unrelated prohibitions. When a result contains brass despite the instruction, note the failure as a detected deviation; do not infer that other constraints were obeyed.

24.4 Weighted control

Where a tool exposes strength or guidance controls, treat the value as an **experimental parameter**, not a musical measurement. Raising it does not necessarily improve compliance with exact notes, bars, and cadences. Record the actual UI label and valid range on the generation date. No universal value such as 0.8 can be prescribed for every service.

24.5 Reference control

A supplied chord track, symbolic progression, MIDI event list, melody recording, or reference audio may convey information that prose cannot. These inputs are not interchangeable. A text-to-audio interface may ignore MIDI; an audio-conditioned interface may preserve contour while changing harmony. Check supported modalities before preparing the experiment. For

the printed curriculum, explain the difference. The companion Interactive Lab offers practical playback and note-editing exercises.

24.6 Worked comparison

Control: Original 40-bar map and piano-led arrangement. **Test:** Same map with the explicit exclusion "no brass" (provided the interface supports exclusion text). Expected observation: brass is absent in the test output. Because independent outputs can differ in harmony and form too, inspect those separately and avoid attributing all differences to the exclusion field.

Transition: Chapter 25 takes a documented result and decides what can be repaired locally, what can be adjusted in a DAW, and what requires a fresh generation or actual composition.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Negative and weighted instructions express preferences, while references may constrain outputs in tool-specific ways.

2 · FROM THEORY TO PROMPTING

State positive objectives first; document unsupported control syntax as unavailable.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create a restrained solo-piano instrumental passage with an
exposed melody and light accompaniment. Avoid prominent percussion
or dense orchestration. If the tool supports verified reference
audio, use the supplied example only for the musical attribute
specified in the test plan.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Avoid percussion" is a negative preference, not a guaranteed exclusion; reference control depends on the chosen interface.

4 · GUIDED VARIATIONS

A. Replace one negative statement with a positive texture requirement.

B. Compare runs with and without an allowed reference.

C. Keep the same reference and change one written preference.

5 · YOUR TURN

Design a prompt that does not assume undocumented parameter weighting.

6 · LISTEN, EVALUATE & REVISE

Record whether reference use and exclusions were supported and audibly honored.

CHAPTER 25: SECTION EDITING, STEMS, AND THE DAW

Level 5 – Professional Meta-Arrangement | Western music theory

25.1 What is being edited?

Section replacement changes part of an audio performance. **Stem separation** estimates component sounds from a mixed recording. A **DAW (digital audio workstation)** lets the composer arrange, record, edit and mix audio or MIDI. None of these tools, by themselves, proves that a generated chord has the correct spelling or that a cadence exists.

25.2 Diagnose before choosing an edit

For Theme A, suppose the C-major return is weak because the audio omits G7 at bar 39. Identify where bar 39 actually lies in the render. If the generator supports local editing, request only the preceding dominant-and-resolution span while preserving adjacent material. If the tool lacks reliable harmonic editing, write or record the G7–C in a DAW, or produce another take. **EQ cannot turn the wrong harmony into the right one.**

25.3 Choose the correct repair tool

Audible problem	Musical repair	Production tool
Bar 39 lacks dominant seventh	Replace or compose the G7 → C harmonic event	MIDI arrangement, local regeneration if available
Cello enters too early	Adjust entrance timing	Multitrack edit if isolated; otherwise regenerate
Bass masks piano	Rebalance frequencies and levels	EQ and automation in DAW
Vocal part appears in instrumental study	Remove if separable; regenerate if intrusive	Stem separation or new generation
G-major area never becomes stable	Rework tonal plan and its musical realization	Recomposition / guided regeneration, not mastering

25.4 Limits of separated stems

A separated "piano stem" is an estimate extracted from a mix, not the original clean instrument recording. Bleed and artifacts may remain, especially when overlapping notes share frequencies. The number and type of available stems depend on the selected tool and mode; do not assume a universal twelve-stem or hundred-instrument workflow.

25.5 DAW handoff checklist

Preserve the original mix. Document the intended tempo grid and actual timing drift. Export available audio with known sample rate and bit depth. Align stems by the same time origin;

inspect transients before applying time stretching. Keep reversible gain, EQ, compression, reverb and automation separate from compositional changes. Record each correction in the Harmony Decision Record.

25.6 Capstone – Theme A production decision

Deliver a written package containing (1) the 40-bar music specification, (2) a generation log, (3) a comparison rubric, (4) one diagnosed deviation, (5) an evidence-supported repair decision, and (6) a revised specification. Use the companion Interactive Lab for related chapter exercises; evaluate any audio against the written plan.

Final diagnostic: Did the intended C → G → C journey become musically persuasive? What evidence supports that answer? What remains uncertain? A technically polished track can still miss the central compositional goal. Level 5 therefore ends by evaluating musical intention rather than mere audio quality.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Section editing and stems can enable targeted revisions but depend on available tools and source separation.

2 · FROM THEORY TO PROMPTING

Identify the section, intended edit and musical invariant to preserve.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Revise only bars 9–16 of a 24-bar instrumental arrangement: reduce
accompaniment density while retaining the melody, tempo and
harmonic progression. Use section-editing or DAW controls only
where the current tool actually supports them.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Only bars 9–16" defines edit scope; the unchanged melody and harmony are invariants.

4 · GUIDED VARIATIONS

A. Change instrumental density in a different section.

B. Keep texture but correct the ending harmony.

C. Use available stems to reduce percussion independently.

5 · YOUR TURN

Write a targeted edit request with scope, change and preservation criteria.

6 · LISTEN, EVALUATE & REVISE

Compare edited and unedited sections and note any unintended changes.

PART VII: PEDAGOGY AND PRACTICE

CHAPTER 26: THE FOUR COMPOSER–SPECIFIER COMPETENCIES

Part VII – Pedagogy and Practice | Level 5 applied to learning

26.1 What a competent composer can demonstrate

Music theory is useful when a composer can make an intentional choice, hear or inspect its result, and explain what happened. In an AI-assisted workflow, the composer must also distinguish a written instruction from an audible outcome. Four competencies summarize that work: **formalization, sequencing, contextualization, and diagnosis**. They do not replace ordinary musicianship; they organize its use during generation and revision.

Formalization means stating an idea precisely enough to test. Rather than "make the bridge more sophisticated," specify "at bars 19–21, use Am–D7–G to establish G major." Formalization does not guarantee compliance. It states a musically coherent target.

Sequencing means placing events in a meaningful order. The same chords may create different expectations when their order, duration or phrase placement changes. Theme A prepares G major in section B, maintains that center in section C, and returns toward C in A″.

Contextualization means choosing the analytical vocabulary appropriate to the musical example. Functional labels explain the D7–G relationship; voice-leading analysis can address F♯ moving to G, but only when that motion is actually present; arrangement analysis explains why new instruments change density but do not themselves establish a key.

Diagnosis means comparing what was requested with what can be heard or measured. "The model missed the modulation" is not enough. Name the evidence: perhaps F♯ never occurs, D7 is absent, or the later section never treats G as a tonal center.

26.2 One example, four competencies



FIGURE 48 · ii–V7–I is the functional reading in G.

Use the fixed 40-bar Theme A study (4/4, quarter note = 96 BPM). The source specification requests Am at bar 19, D7 at bar 20, G at bar 21, and another D7–G at bars 23–24. The intended local function in G major is ii–V7–I. **Formalize** those facts; **sequence** the two

arrivals; **contextualize** their likely function; **diagnose** whether the rendered sound supports a change of tonal center.

A Roman numeral is a statement about a chord **within a key**. The same Am chord is vi in C major and ii in G major. It should not be called a pivot simply because it appears in the table: its pivot role depends on the surrounding harmonic passage.

26.3 Assessment and handoff

A passing submission includes the intended event, the analytical reason for it, the method used to check it, the observed result, and a defensible revision. A generated recording alone is not evidence of theoretical understanding. Chapter 27 turns these competencies into teachable exercises.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

The composer–specifier must hear, name, direct and evaluate musical decisions.

2 · FROM THEORY TO PROMPTING

Express each competency as a distinct action within a prompt-and-review cycle.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Describe a short generated instrumental excerpt in terms of tonal
center, contour, texture and phrase ending. Then write a revised
generation instruction that changes only the weakest verifiable
feature while preserving the other three.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

Observation precedes revision; "weakest verifiable feature" requires specific audible evidence.

4 · GUIDED VARIATIONS

A. Revise harmony while holding form stable.

B. Revise texture while keeping tonal center and contour.

C. Explain a failure without using a mood adjective as proof.

5 · YOUR TURN

Produce an evidence-to-instruction revision chain.

6 · LISTEN, EVALUATE & REVISE

Require a specific audible observation for every revision decision.

CHAPTER 27: EXERCISES FROM SOUND TO SPECIFICATION

27.1 Exercise design: preserve one musical question

Each exercise should change **one specified musical variable** and then compare outcomes. Models remain stochastic, so repeated generations may differ in multiple audible respects even when the prompts differ in one field. Therefore distinguish a controlled *prompt comparison* from a fully controlled *audio experiment*.

The companion Interactive Lab supports practical exercises aligned with this chapter. The book supplies theory, notation, tasks, and evaluation questions. Treat an exercise specification separately from any audio or notation used to demonstrate it.

27.2 Exercise A – Name the function



FIGURE 49 · ii–V7–I in C major.

Given: C–F–G7–C in C major. **Task:** Label each chord with Roman numerals and describe the intended harmonic trajectory. **Model answer:** I–IV–V7–I; tonic, predominant, dominant, tonic. This sequence can support an authentic cadence if musical phrasing produces a genuine ending. V7–I on paper alone is not proof that a cadence was heard.

27.3 Exercise B – Keep the key, change the color



FIGURE 50 · Fm is borrowed iv in C major.

Baseline: Theme A bars 5–8, C–F–G–C. **Test:** C–Fm–G–C. Fm is the borrowed minor subdominant (iv) in C major, taken from the parallel minor. The only changed chord is F → Fm, whose third changes A → A♭. Evaluate whether the intended color survives; do not assume that the output obeyed the chord symbols.

27.4 Exercise C – Tonicization or modulation?



FIGURE 51 · Decide from the surrounding context, not chord symbols alone.

Given: Theme A bars 17–32. Locate the candidate pivot Am at bar 19, D7 at bar 20, D7–G at 23–24 and the following G-major section. Explain why D7 is V7 of G and not diatonic V7 of C. Then answer: what evidence beyond a single D7 would support an established key change? The repeated dominant–tonic motion and continuation in G provide stronger context than the chromatic chord alone.

27.5 Exercise D – Correct the reasoning, not just the answer

Error-seeded analysis: "In C major, A7 is V/vi because it resolves to Dm." **Correction:** A7 is V7/ii when resolving to Dm, the ii chord of C. Its C♯ is the leading tone toward D. The learner must explain the chord's target and its alteration.

27.6 Exercise E – Diagnose a generated section

Supply a written request, a rendered passage when available, and an observation sheet with five columns: event intended; bar range; listening/transcription evidence; outcome (present, partial, absent, uncertain); next action. When audio is unavailable, this remains a specification-analysis exercise, not a claim of successful sound generation.

27.7 Progression from beginner to professional

A novice first labels notes and chords. An intermediate learner explains why the function depends on tonal context. An advanced learner writes a bar-accurate specification and examines a performance or render. The same music develops across these stages without requiring a different piece for every theoretical topic.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Sound-to-specification exercises work backward from audio evidence to plausible written requirements.

2 · FROM THEORY TO PROMPTING

Distinguish what is heard from what is only inferred.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Listen to an instrumental excerpt and draft a proposed
specification naming the dominant instrument, approximate
register, melodic direction, likely tonal center and audible
section transitions. Mark anything not firmly established as
uncertain.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Proposed" avoids treating a reverse-engineered prompt as the original hidden prompt.

4 · GUIDED VARIATIONS

A. Write a more conservative specification using only confirmed features.

B. Compare two possible tonal interpretations.

C. Generate a new excerpt from the inferred specification and compare.

5 · YOUR TURN

Reverse-specify a passage with confidence labels for each musical observation.

6 · LISTEN, EVALUATE & REVISE

Do not claim that a matching reconstruction proves the original prompt or composition process.

CHAPTER 28: LEARNING BY TEACHING AND CORRECTING

28.1 Teaching a model is a check on the student's explanation

A student may use a language model as a simulated novice, a practice analyst, or a source of alternative explanations. Such a model is **not** a certified judge of correctness. Its apparent agreement does not verify musical analysis. The teacher or learner must check the actual pitches, chords and definitions independently.

28.2 A short teachable-agent exercise

Student instruction: "Act as a beginner learning secondary dominants. Ask one question at a time about the following passage: C–A7–Dm–G7–C. Do not assume my answers are correct. After each explanation, present a short counterexample."

Reference analysis: in C major, C is I, A7 is V7/ii, Dm is ii, G7 is V7 and C is I. A7 contains C♯, which directs attention toward D. G7 is the primary dominant of C, not a secondary dominant.

The exercise measures the clarity of the student's reasoning, not the model's supposed learning. If the model incorrectly calls A7 V7/vi, the student should explain that vi in C is Am, whereas Dm is ii.

28.3 Constructive correction

Use this procedure: identify the claim; check the pitch content; identify the key and local goal; correct the Roman numeral; explain the effect in plain language; verify that the revised explanation does not create another contradiction. For ambiguous passages, allow multiple plausible interpretations with explicit assumptions.

28.4 Compare analytical lenses without conflating them

A functional analysis asks which tonal goal a chord serves. A voice-leading analysis tracks motion between individual notes. A modal analysis asks which collection and center are established. An orchestration analysis asks how instruments distribute musical material. Different questions do not automatically produce mutually exclusive answers.

28.5 Reflection

Have the learner record the strongest corrected explanation and a case where the available evidence was insufficient. Chapter 28.5 formalizes this reflection into a repeatable decision record.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Explaining and correcting a musical claim exposes gaps in theoretical understanding.

2 · FROM THEORY TO PROMPTING

Ask for explicit justification and test a model answer against audible or notated evidence.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Explain why G7 followed by C major may suggest dominant-to-tonic
movement in C major. State what additional melodic, rhythmic and
phrase-ending evidence would be needed before labeling the result
an authentic cadence.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

The instruction requests a conditional analysis, not an automatic classification.

4 · GUIDED VARIATIONS

A. Test the same logic on a phrase that does not end on C.

B. Ask for pitch spellings of each chord before analysis.

C. Deliberately present an ambiguous example and request uncertainty.

5 · YOUR TURN

Write a theory-check prompt that requests evidence and alternative readings.

6 · LISTEN, EVALUATE & REVISE

Verify explanations against the actual musical material; reject confident unsupported labels.

CHAPTER 28.5: THE THREE LOOPS AND THE HARMONY DECISION RECORD

28.5.1 The three-loop method

Loop 1 – Specify: establish a clear musical intention and an observable test. **Loop 2 – Compare:** create or obtain the result and assess the relevant portion against the specification. **Loop 3 – Revise:** choose a musical or production correction, documenting the reason. Repeat only when the result advances the stated compositional objective.

These loops do not imply that the model obeys instructions or that a revised prompt necessarily isolates one audible change.

28.5.2 Decision record

Field	Theme A example
Source and version	Fixed 40-bar specification, revision number
Expected event	Bar 20 D7, aiming toward G at 21
Intended function	V7–I in G major; local tonicization within the transition
Observed evidence	Enter only after listening/transcription; do not prefill
Result	Present / partial / absent / uncertain
Proposed change	Revise harmonic passage, reference, or local edit
Evaluation method	Rehear and verify chord pitches and tonal center
Decision	Keep / revise / reject, with explanation

28.5.3 Five-step harmonic diagnosis

18. Identify the most plausible key or modal center from more than one musical cue.
19. Determine chord roots, qualities and inversions where audible.
20. Assign Roman numerals in the stated tonal context; identify chromatic exceptions.
21. Trace actual bass and melodic/inner-voice motion where discernible. Do not infer an unheard voice from a chord symbol.
22. Assess phrase boundaries, accent, harmonic rhythm and tonal arrival before naming a cadence.

A bass moving by descending fifths is a common functional pattern, not proof of function in every style. Similarly, V–I may support an authentic cadence without demonstrating one in an unphrased chord list.

28.5.4 Reference collection

Keep successful and unsuccessful specifications together with evidence. A useful prompt library is an indexed musical notebook: it records which ideas were attempted, what was heard, and which conclusions remain uncertain.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

The three loops connect specifying, producing and evaluating; the harmony decision record keeps reasoning auditable.

2 · FROM THEORY TO PROMPTING

Require separate records for intent, generated result and revision.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
For an eight-bar C-major generation, record: intended chord
sequence and target cadence; audible or transcribed chord
evidence; mismatches; one proposed correction; and the evidence to
collect on the next version.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Intended" and "observed" must remain separate fields in a traceable decision record.

4 · GUIDED VARIATIONS

A. Repeat the loop for a failed instrument entrance.

B. Repeat the loop for an ambiguous tonic.

C. Compare two documented revisions of one phrase ending.

5 · YOUR TURN

Complete a three-stage decision record for one real generated excerpt.

6 · LISTEN, EVALUATE & REVISE

A revised written instruction is not confirmed until the new output is evaluated.

PART VIII: TOOL SYNTAX AND TRANSLATION – REFERENCE, NOT GUARANTEE

CHAPTER 29: SUNO – TRANSLATING THE MUSICAL PLAN

Tool-reference chapter. Interface syntax and available features require current documentation checks before publication or use. The musical rules remain independent of any particular generator.

29.1 Preserve the same source specification

The source for this chapter is Theme A's 40-bar, 4/4, quarter note = 96 BPM harmonic map in Chapter 22. Sections A, A′, B, C and A″ have eight bars each. The intended center moves C → G → C. Do not shorten, transpose or replace the harmonic map when illustrating a tool interface.

29.2 Organize rather than overload the prompt

Create a style description containing instrumentation, genre or production context and a clear tempo request. If the current interface supports sectional instructions, describe the five sections and their changing texture. If chord symbols are accepted as textual guidance, provide them in a form consistent with current documentation, but treat them as requests rather than guarantees.

Musical brief: "Instrumental, 96 BPM, 4/4, five eight-bar sections. Sparse piano first; bass enters in A′; cello in B; brushed drums and fuller strings in C; reduce at the beginning of A″ and rebuild for the final G7–C. Introduce G major in B with Am–D7–G, establish it in C, and return to C major in A″."

Separate chord map: retain the complete bar-by-bar table from Chapter 22 as the reference specification. Do not assume a text-only input exposes reliable note-accurate control over all forty bars.

29.3 Compare result with request

Check the perceived pulse against 96 BPM, establish actual bar boundaries, listen for the intended harmonic regions, identify whether instrument entrances occur in the right sections and note any missing chord changes. If the final render differs, record that discrepancy; do not retroactively change the intended specification to match the audio.

29.4 Feature verification checklist

When using a music-generation platform, consult its current official documentation. Check supported text fields, lyric and section tags, chord-symbol handling, negative controls, reference audio, editing, export, stems and plan-dependent limits. Tool features vary over time; do not assume fixed weighting priorities or guaranteed chord adherence.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Suno-specific application must distinguish musical intention from the current interface and its documented controls.

2 · FROM THEORY TO PROMPTING

Express musical invariants in portable language and verify supported fields before entering them.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create a 16-bar piano-led instrumental study: C major, 4/4,
quarter note = 96 BPM, sparse opening, bass entering in the second
eight-bar section, and a clear return to C near the end. Use the
current Suno interface only for controls it demonstrably provides.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

The text states the musical plan; exact bars, BPM and chords are targets rather than guaranteed Suno compliance.

4 · GUIDED VARIATIONS

A. Keep the plan and revise only the instrumentation request.

B. Ask for a different section contrast while maintaining the key.

C. Compare generated takes against a fixed written specification.

5 · YOUR TURN

Translate a harmonic map into platform-supported input without inventing controls.

6 · LISTEN, EVALUATE & REVISE

Verify actual interface support, then listen or transcribe before marking requirements met.

CHAPTER 30: UDIO – PROSE, SECTIONS AND EVIDENCE

Tool-reference chapter. Confirm current access, controls and vendor documentation before asserting a feature.

30.1 Translate the same 40 bars

Use the identical source specification and harmonic map from Chapter 22. A prose arrangement description may help communicate the intended performance: "Instrumental piano-led passage, 4/4 at quarter note = 96 BPM. Begin sparsely in C major. Add bass during the second eight-bar section. Introduce cello and a shift toward G major through Am–D7–G in the middle. Establish G major with fuller accompaniment, then thin and rebuild the final eight bars to close on G7–C in C major."

This is not a claim that the system can map every description to exact timestamps, or that any particular textual tag is recognized by all versions.

30.2 Sectional translation

If the available interface supports section creation or extension, plan boundaries at bars 1, 9, 17, 25 and 33. Preserve musical continuity when building separate sections: pulse, harmonic center, register and orchestration. The option to edit, extend, upload reference audio or exclude styles depends on the platform's current controls.

30.3 Evaluate rather than rank by reputation

Do not assume one platform is universally more faithful, more editable or better sounding than another. Evaluate the same task on the same musical criteria. Record the render date, exact prompt, interface mode and available input conditions so later comparisons remain interpretable.

30.4 What to check in the output

Does G become a plausible new center after D7? Are C and G distinguishable as tonal regions? Is the final G7–C audible as written, and does the phrase actually close? Are the instrument entrances approximately where specified? Answer with listening and, where useful, transcription, not by reading the original prompt back as though it were a score.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Udio prose and section workflows communicate musical structure but require current interface verification.

2 · FROM THEORY TO PROMPTING

Translate a fixed plan into prose while avoiding assumptions about exact timing controls.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Create an instrumental piano-and-bass passage with a sparse C-
major opening, a fuller middle section moving toward G major
through D7, and a final return to C. Maintain 4/4 and a target
quarter-note tempo of 96 BPM where possible. Use section controls
only if supported by the current Udio interface.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

The modulation target is a musical instruction; interface capabilities and actual output require independent verification.

4 · GUIDED VARIATIONS

A. Keep tonal plan and remove the added instrument.

B. Move the section contrast without changing keys.

C. Compare prose-only with a supported sectional workflow.

5 · YOUR TURN

Write a Udio-facing prose request and a checklist of unverified controls.

6 · LISTEN, EVALUATE & REVISE

Assess key centers, section boundaries and instrument entries separately.

CHAPTER 31: WHAT CHANGES BETWEEN TOOLS?

31.1 One composition, more than one interface

A **musical specification** is the intended composition: pitches, harmonic goals, duration, formal structure and arrangement. A **platform encoding** is how that intention is communicated to a particular system. Changing the encoding must not silently change the musical objective.

Musical invariant	Textual/prose expression	Verification
Quarter note = 96, 4/4	State tempo and meter	Beat/bar analysis of audio
Five sections of eight bars	Name sections and transitions	Confirm actual section lengths
C → G → C tonal plan	Describe the D7–G transition and return	Harmonic listening / transcription
Instrumental textures	State piano, bass, cello, drum entrances	Check heard instrumentation and timing
Last two chords G7–C	State intended final harmonic motion	Identify chord pitches and phrase ending

31.2 Example: a faithful translation

Source specification: bars 17–24: C–F–Am–D7–G–C–D7–G, one chord per bar. Am is the candidate pivot, functioning as vi in C and ii in G; D7 introduces F♯ and functions as V7 of G. The repeated D7–G and the continuation in G support the intended modulation.

Compact prose request: "In the third eight-bar section, move from C major toward G major. Use the sequence C–F–Am–D7–G–C–D7–G at one chord per bar; make G a convincing new center before the fourth section."

Structured description: section=B; bars=17–24; beats_per_bar=4; tempo_qpm=96; chords=C,F,Am,D7,G,C,D7,G; target_center=G_major.

The structured description is **the book's illustrative specification format**, not a claimed vendor API syntax. Both versions request the same music but may differ in how successfully a particular tool interprets them.

31.3 A crucial distinction

If a tool cannot constrain exact pitches, mark the pitches as *intended but unconfirmed*. If the tool supports score, MIDI or audio conditioning, verify the documented input format before claiming that direct MIDI upload works. For a theory exercise, an answer from a text model and a musical result from an audio model must be evaluated separately.

31.4 Cross-platform review

Compare the same four categories: harmony, time, arrangement and perceptual effect. State the limits of each test. Chapter 31.5 provides a cautious overview of other production approaches.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Different tools encode one musical intention using distinct interfaces and levels of control.

2 · FROM THEORY TO PROMPTING

Maintain a tool-independent specification while adapting the input form.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Using one fixed eight-bar C-major study at 96 quarter-note BPM
with a G7–C ending, prepare two platform-specific requests from
the same musical requirements. Do not add new harmonies or change
the intended form between tools.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

"Same specification" means matching intended invariants, not equivalent model behavior.

4 · GUIDED VARIATIONS

A. Compare two tools with identical musical goals.

B. Adapt the same plan to a score-based environment.

C. Document a control present in one tool and absent in another.

5 · YOUR TURN

Create a tool-translation table separating musical intent from UI implementation.

6 · LISTEN, EVALUATE & REVISE

Compare realized music, not reputation or unsupported feature assumptions.

CHAPTER 31.5: OTHER GENERATION AND COMPOSITION WORKFLOWS

31.5.1 Why the tool landscape belongs in a reference chapter

Music-generation tools change more quickly than harmonic theory. Distinguish text-to-audio systems, audio-conditioned generation, symbolic or MIDI-oriented composition, and conventional DAW workflows. A system's inclusion here does **not** establish that its current product supports a specific feature or is accessible to every reader.

31.5.2 Stable Audio

Where currently supported, audio-conditioned generation can use an existing recording as context for a variation. If a noise or variation parameter exists, its name, range and behavior must be checked for the specific current product or API. Placing “noise level 0.5” in ordinary descriptive prose is not equivalent to changing a real interface parameter. Do not state that a MIDI file is accepted directly as reference **audio**; a MIDI sequence must be rendered to sound if the interface requires an audio file.

31.5.3 MusicGen / AudioCraft

Distinguish text-conditioned output from any supported melody- or audio-conditioned variant. A written chord map is not identical to an audio reference. Verify implementation, checkpoint, licensing and input requirements before prescribing a workflow. A model's use of a reference melody must be checked by listening rather than assumed from the invocation.

31.5.4 AIVA and symbolic composition

Some composition systems expose notation- or harmony-oriented workflows, but do not assume a universal Roman-numeral parser. If the interface accepts Roman numerals, specify the key and verify the generated chords. Example in C major: I–vi–ii–V represents C–Am–Dm–G. The book will not claim that this spelling renders faster or more accurately than letter names without tool-specific evidence.

31.5.5 Honest comparison

Select a tool according to the *currently verifiable* controls needed: harmonic accuracy, length, editing granularity, reference conditioning, exportability and permissions. Keep vendor capabilities in a dated appendix or reference table, not embedded as permanent truths in the music-theory progression.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

Alternative generation and composition workflows may accept prose, notation, MIDI or reference audio.

2 · FROM THEORY TO PROMPTING

Select an appropriate representation without treating different input media as interchangeable.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Specify a four-bar melody with explicit pitches C4–D4–E4–G4 and
stated note durations. Where supported, enter these events as
notation or MIDI; for a text-to-audio system, provide a prose
approximation and label exact-pitch adherence as unverified until
checked.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

Explicit note events require a symbolic representation for deterministic control; prose may be approximate.

4 · GUIDED VARIATIONS

A. Compare prose and MIDI with the same pitches.

B. Change the rhythm while keeping pitches fixed.

C. Use reference audio only where documented and permitted.

5 · YOUR TURN

Create equivalent musical intentions in two valid input representations.

6 · LISTEN, EVALUATE & REVISE

Compare actual pitch and rhythm evidence; do not equate submission formats with equal control.

PART IX: THE UNIFIED CAPSTONE

CHAPTER 32: THE COMPLETE SPECIFICATION – UNIFIED CAPSTONE

Part IX – Integrating the five levels

32.1 The musical assignment

Develop the established **Theme A 40-bar harmonic framework** into a coherent instrumental composition. The book provides an intentionally fixed harmonic plan; the reader or companion interactive app can supply melodic detail and sound realization. The assessment asks whether the resulting music makes the intended tonal motion, form and changes of texture intelligible.

Fixed facts: 4/4; quarter note = 96 BPM; five eight-bar sections; one written chord per bar; nominal length 100 seconds, excluding any introduction, ending, silence, rubato or deviations added in performance.

This is a harmonic specification, not a complete score. Actual phrase boundaries and the strength of tonal arrival depend on realized melodic, rhythmic and performance details.

32.2 Connect the five levels

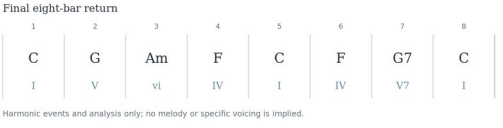


FIGURE 52 · The intended home key is C major.

Level 1 – Foundations: correctly identify pitches, chord spellings, meter, tempo and relevant tonal centers. **Level 2 – Phrase:** specify where the eight-bar phrases are intended to breathe or arrive, while recognizing that cadence labels require a realized ending. **Level 3 – Color:** make one **alternative** version of bars 5–8 with borrowed iv, C–Fm–G–C; compare to the original C–F–G–C without misidentifying Fm as diatonic. **Level 4 – Architecture:** follow the C → G → C harmonic plan and scheduled instrumental entrances. **Level 5 – Production:** document prompts and controls, evaluate renders, and select a musically justified correction.

The borrowed-iv alternative is a labeled experiment; it does **not** silently replace the immutable source harmony in the standard 40-bar capstone.

32.3 Evidence-based evaluation

Question	Musical evidence required
Did the harmony match?	Chord transcription/identification at specified bars
Did G major become established?	D7–G arrivals, F♯ where appropriate, and continued G-centered harmony
Did the ending return to C?	Audible G7–C with convincing placement in the phrase
Did texture follow the plan?	Instrument entrances: bass at 9, cello at 17, drums at 25; reduction at 33, rebuild at 37
Did Level 3 color have an effect?	Comparative evidence between F and Fm alternative versions
Did the composer revise intelligently?	Written decision record linking a problem to an appropriate repair

None of these answers should be predetermined. A declared key, bracketed chord or descriptive emotion in the prompt is not proof that it exists in the audio.

32.4 Final deliverable

Submit a complete musical specification; a source-versus-render comparison (if audio has been made); one Harmony Decision Record; one controlled written prompt comparison; and a short account of how the final musical result meets or fails the compositional goal. When audio is unavailable, identify the project explicitly as an **unrendered specification**, not as a completed composition.

32.5 Optional scale-color extension

For a Western-theory scale comparison, contrast E Phrygian (E–F–G–A–B–C–D), E Phrygian dominant (E–F–G♯–A–B–C–D), and E double harmonic major (E–F–G♯–A–B–C–D♯). Their third and seventh scale degrees differ. Compare the collections over a common E tonal center, listening for each distinctive pitch rather than relying on emotional labels.

32.6 Final reflection

The theory is not validated by the elegance of the prompt. It is validated by correct musical reasoning, precise descriptions of the intended result, and critical examination of what is actually produced. The student's central achievement is compositional agency: the ability to decide what matters, hear what changed and know which intervention is musically warranted.

PROMPTING MODULE · APPLY WHAT YOU LEARNED

1 · CHAPTER SUMMARY

The capstone joins musical design, platform translation, generation, verification and revision.

2 · FROM THEORY TO PROMPTING

Integrate all previously taught fields into one traceable specification and evidence cycle.

3 · ANNOTATED PROMPT EXAMPLE

COPY-READY PROMPT 01

```
Compose a 40-bar instrumental piece in five eight-bar sections,
4/4 at quarter note = 96 BPM. Begin in C major with piano, add
bass at bar 9 and cello at bar 17, prepare a G-major region
through D7 around the middle, reduce texture near bar 33, and
close with an audible return to C. Preserve the written harmonic
map and document deviations.
```

PROMPT LANGUAGE · WHAT EACH PART MEANS

The form, timing, instrumentation and tonal goals are separate checks; generating a plausible piece does not validate all targets.

4 · GUIDED VARIATIONS

A. Preserve form while changing only the orchestration.

B. Keep orchestration and compare two routes to G.

C. Revise one failed tonal arrival with an auditable change.

5 · YOUR TURN

Produce a complete specification, multi-take log and evidence-based revision report.

6 · LISTEN, EVALUATE & REVISE

Check formal boundaries, harmonic targets, phrase closure, instrument entrances and uncontrolled changes; label unverified requirements honestly.

CHAPTER 33: ADVANCED SCALES, MODES & COMPUTATIONAL COMPOSITION

Advanced extension · A as a common reference pitch

This chapter extends the preceding curriculum without replacing its tonal and compositional foundations. A is used as the common reference to make interval comparisons visible. For symmetrical or chromatic collections, starting on A does not by itself establish an audible A tonic. The entries are selected, documented teaching representations—not an exhaustive inventory of world musical systems.

33.1 Numerical scale degrees and interval notation

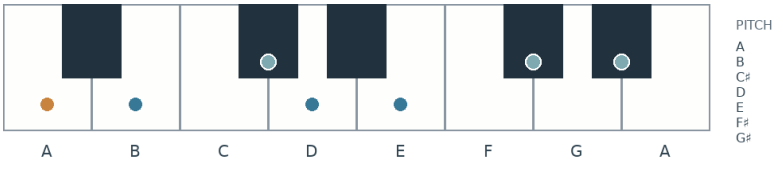
Scale degrees use Arabic numerals: 1, ♭2, 2, ♯2, ♭3, 3, 4, ♯4, ♭5, 5, ♯5, ♭6, 6, ♭7, 7. These symbols are measured against a chosen major-scale reference; for A major, 1=A, 2=B, 3=C♯, 4=D, 5=E, 6=F♯, and 7=G♯. A lowered 3 is C natural; a raised 4 is D♯. The accidentals change pitch by a semitone in twelve-tone equal temperament.

Roman numerals I, ii, V7 and related symbols identify harmonies or their functions, not the degrees of the scale. Altered-scale spellings can contain enharmonic equivalents; their intervallic notation depends on analytical context. Every entry below supplies degree formula, spelled A-reference notes, and its defining musical comparison.

33.2 The seven diatonic modes

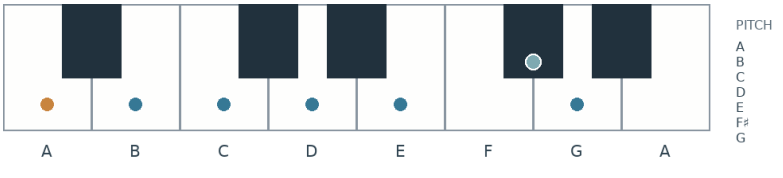
Ionian · 1 2 3 4 5 6 7

A-reference notes: A B C♯ D E F♯ G♯–A. Characteristic comparison: Diatonic major reference.



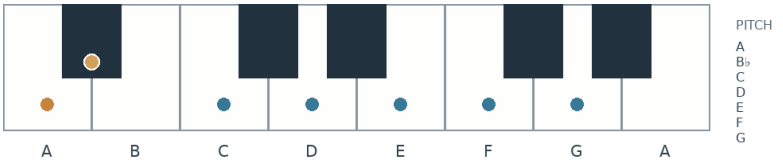
Dorian · 1 2 ♭3 4 5 6 ♭7

A-reference notes: A B C D E F♯ G–A. Characteristic comparison: Natural sixth above a minor tonic.



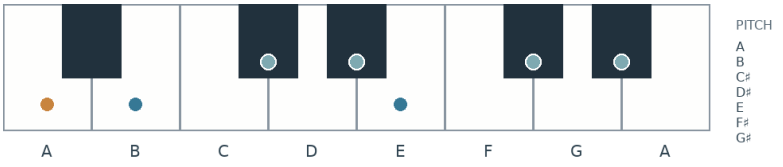
Phrygian · 1 ♭2 ♭3 4 5 ♭6 ♭7

A-reference notes: A B♭ C D E F G–A. Characteristic comparison: Lowered second adjacent to tonic.



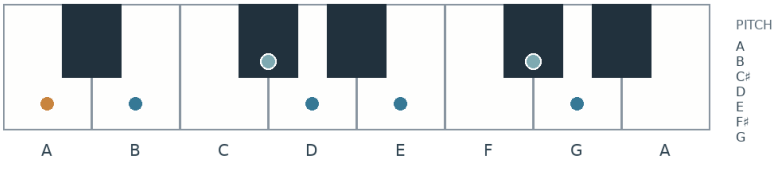
Lydian · 1 2 3 ♯4 5 6 7

A-reference notes: A B C♯ D♯ E F♯ G♯–A. Characteristic comparison: Raised fourth against major tonic.



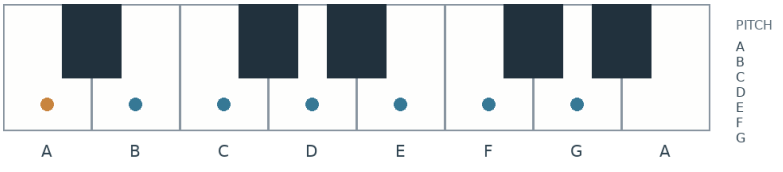
Mixolydian · 1 2 3 4 5 6 ♭7

A-reference notes: A B C♯ D E F♯ G–A. Characteristic comparison: Lowered seventh against major third.



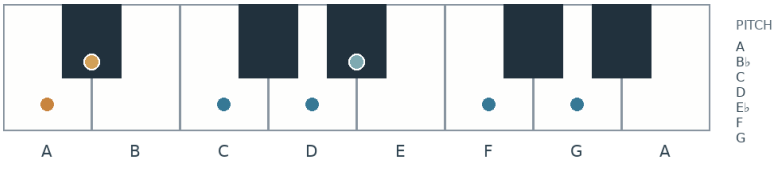
Aeolian · 1 2 ♭3 4 5 ♭6 ♭7

A-reference notes: A B C D E F G–A. Characteristic comparison: Natural-minor reference.



Locrian · 1 ♭2 ♭3 4 ♭5 ♭6 ♭7

A-reference notes: A B♭ C D E♭ F G–A. Characteristic comparison: Diminished fifth limits stable tonic-triad treatment.

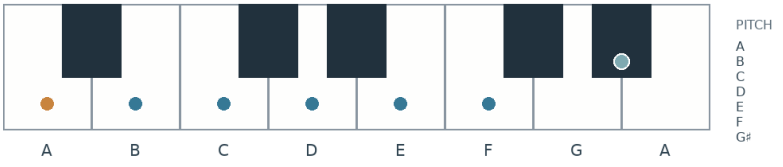


33.3 Harmonic, melodic and altered heptatonic collections

The melodic-minor formula here is the ascending / common jazz collection. In classical theory, descending melodic minor is often represented by the natural-minor collection, conditioned by style and context. An altered-dominant collection is not a stable major/minor key simply because it has a named reference note.

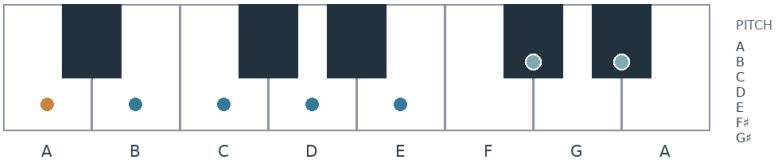
Harmonic minor · 1 2 ♭3 4 5 ♭6 7

A-reference notes: A B C D E F G♯–A. Characteristic comparison: Leading tone G♯ with lowered sixth F.



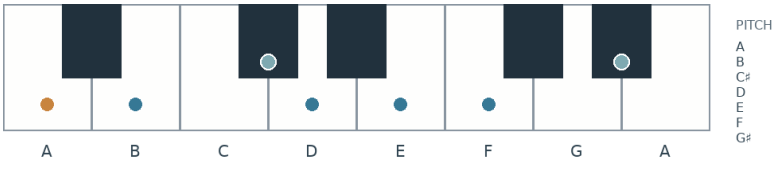
Melodic minor, jazz ascending form · 1 2 ♭3 4 5 6 7

A-reference notes: A B C D E F♯ G♯–A. Characteristic comparison: Natural sixth and major seventh over minor third.



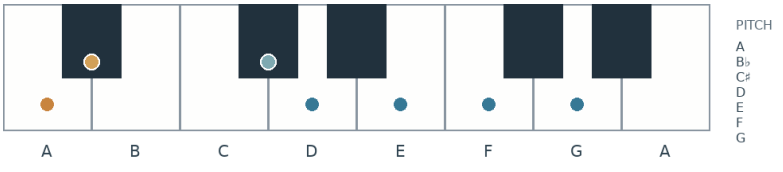
Harmonic major · 1 2 3 4 5 ♭6 7

A-reference notes: A B C♯ D E F G♯–A. Characteristic comparison: Major third and lowered sixth.



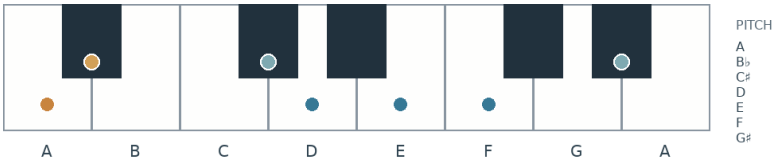
Phrygian dominant · 1 ♭2 3 4 5 ♭6 ♭7

A-reference notes: A B♭ C♯ D E F G–A. Characteristic comparison: Compare lowered seventh with double harmonic major.



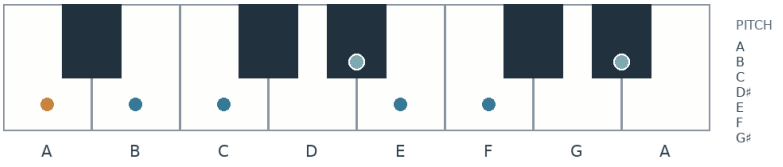
Double harmonic major · 1 ♭2 3 4 5 ♭6 7

A-reference notes: A B♭ C♯ D E F G♯–A. Characteristic comparison: Augmented seconds B♭–C♯ and F–G♯.



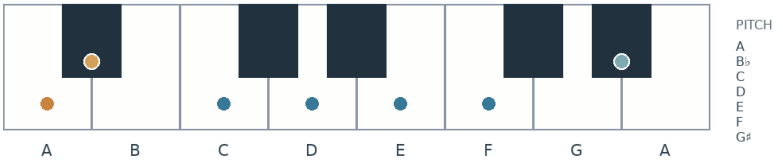
Hungarian minor · 1 2 ♭3 ♯4 5 ♭6 7

A-reference notes: A B C D♯ E F G♯–A. Characteristic comparison: Raised fourth and leading seventh.



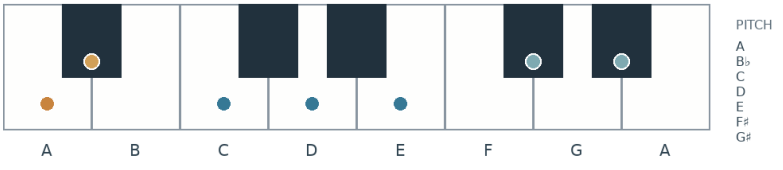
Neapolitan minor · 1 ♭2 ♭3 4 5 ♭6 7

A-reference notes: A B♭ C D E F G♯–A. Characteristic comparison: Lowered second plus leading tone.



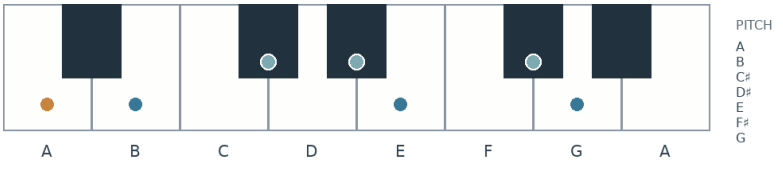
Neapolitan major · 1 ♭2 ♭3 4 5 6 7

A-reference notes: A B♭ C D E F♯ G♯–A. Characteristic comparison: Lowered second with natural sixth and leading tone.



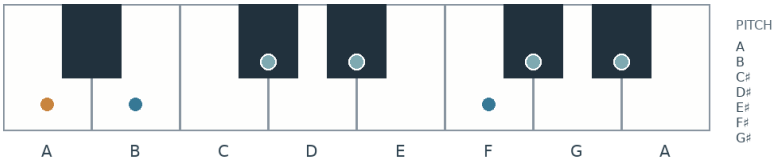
Lydian dominant · 1 2 3 ♯4 5 6 ♭7

A-reference notes: A B C♯ D♯ E F♯ G–A. Characteristic comparison: Raised fourth and lowered seventh.



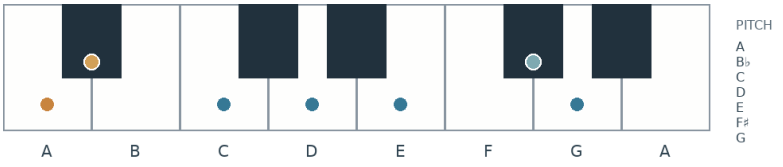
Lydian augmented · 1 2 3 ♯4 ♯5 6 7

A-reference notes: A B C♯ D♯ E♯ F♯ G♯–A. Characteristic comparison: Augmented fifth; theoretical spelling matters.



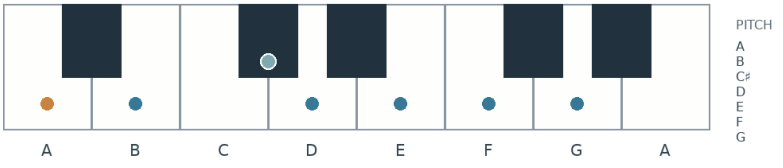
Dorian ♭2 · 1 ♭2 ♭3 4 5 6 ♭7

A-reference notes: A B♭ C D E F♯ G–A. Characteristic comparison: Lowered second and natural sixth.



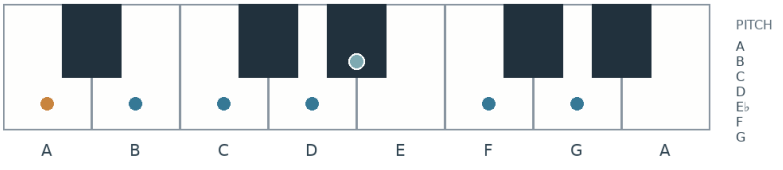
Mixolydian ♭6 · 1 2 3 4 5 ♭6 ♭7

A-reference notes: A B C♯ D E F G–A. Characteristic comparison: Major third, lowered sixth, lowered seventh.



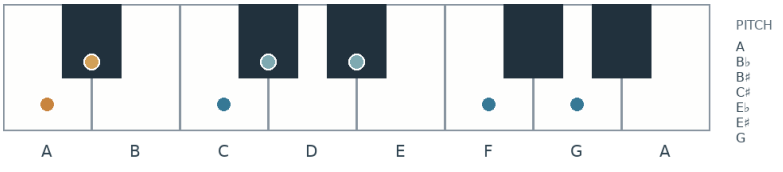
Locrian ♮2 · 1 2 ♭3 4 ♭5 ♭6 ♭7

A-reference notes: A B C D E♭ F G–A. Characteristic comparison: Natural second above diminished fifth.



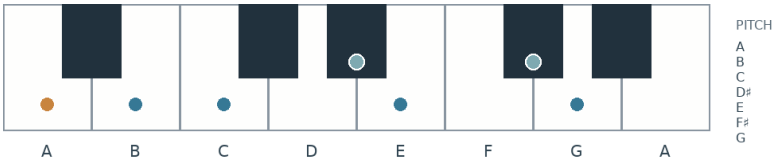
Altered / Super-Locrian · 1 ♭2 ♯2 3 ♭5 ♯5 ♭7

A-reference notes: A B♭ B♯ C♯ E♭ E♯ G–A. Characteristic comparison: Dominant-application spelling; enharmonic collection B♯=C, E♯=F.



Dorian ♯4 · 1 2 ♭3 ♯4 5 6 ♭7

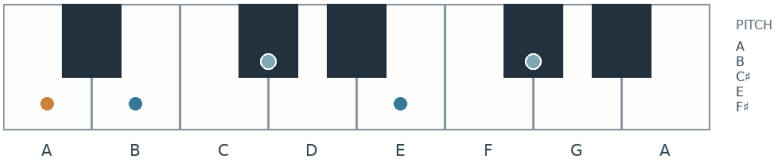
A-reference notes: A B C D♯ E F♯ G–A. Characteristic comparison: Raised fourth in a Dorian-like context.



33.4 Pentatonic and blues-related collections

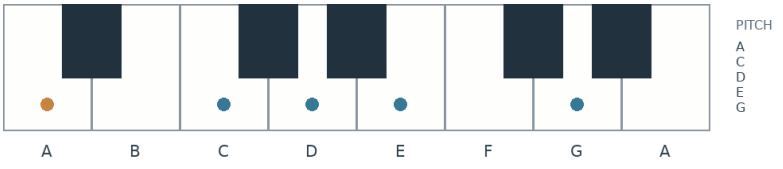
Major pentatonic · 1 2 3 5 6

A-reference notes: A B C♯ E F♯–A. Context: Five-note major-associated collection.



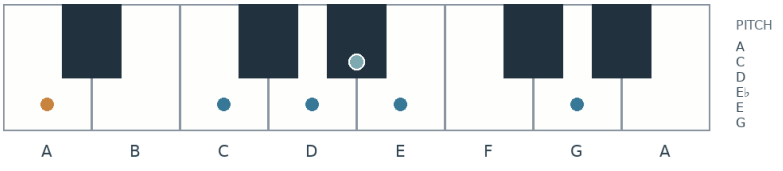
Minor pentatonic · 1 ♭3 4 5 ♭7

A-reference notes: A C D E G–A. Context: Five-note minor-associated collection.



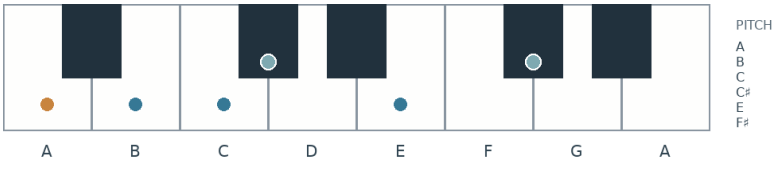
Minor blues collection · 1 ♭3 4 ♭5 5 ♭7

A-reference notes: A C D E♭ E G–A. Context: Blue-note convention does not exhaust blues intonation.



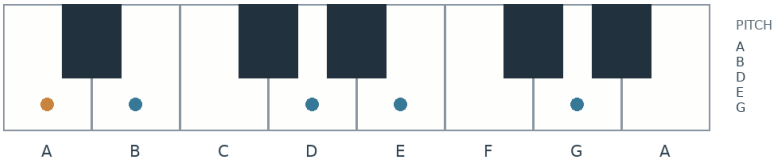
Major blues collection · 1 2 ♭3 3 5 6

A-reference notes: A B C C♯ E F♯–A. Context: Chromatic third relation, not fixed blues practice.



Suspended pentatonic · 1 2 4 5 ♭7

A-reference notes: A B D E G–A. Context: Third omitted; suspended color.

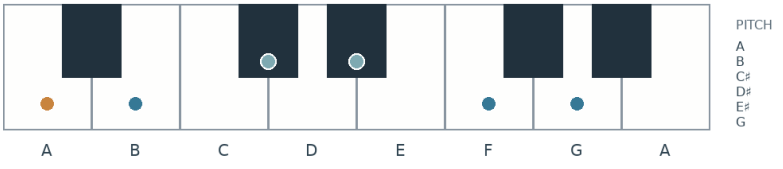


33.5 Symmetrical and synthetic collections

Whole-tone and octatonic collections repeat under transposition and do not impose an ordinary functional tonic. A can be emphasized through drone, repetition and register, but that musical center is an arrangement decision. Eight-note octatonic collections and six-note whole-tone collections must not be mislabeled heptatonic modes.

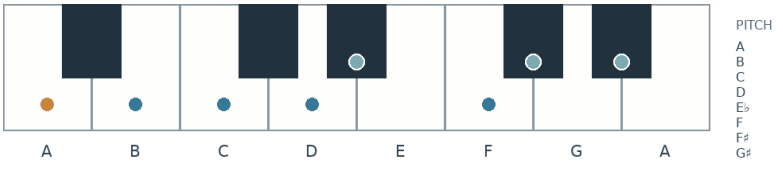
Whole tone · 1 2 3 ♯4 ♯5 ♭7

A-reference notes: A B C♯ D♯ E♯ G. Structural point: Six equal whole steps; tonic requires external emphasis.



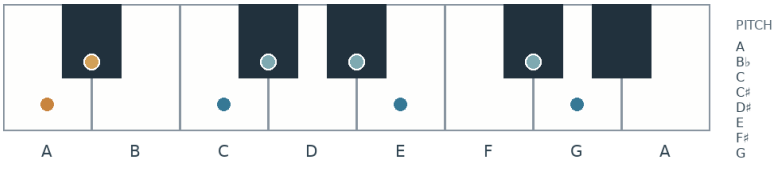
Octatonic whole–half · 1 2 ♭3 4 ♭5 ♭6 6 7

A-reference notes: A B C D E♭ F F♯ G♯. Structural point: Eight notes, alternating 2 and 1 semitones.



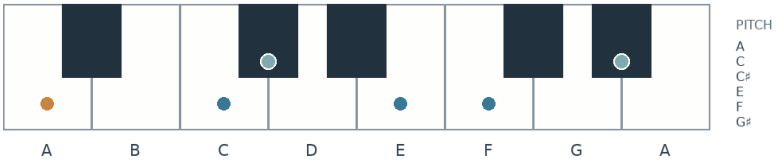
Octatonic half–whole · 1 ♭2 ♯2 3 ♯4 5 6 ♭7

A-reference notes: A B♭ C C♯ D♯ E F♯ G. Structural point: Eight notes, alternating 1 and 2 semitones.



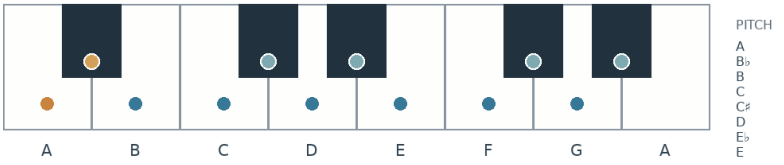
Augmented hexatonic · 1 ♭3 3 5 ♭6 7

A-reference notes: A C C♯ E F G♯. Structural point: Alternating minor thirds and semitones.



Chromatic · all twelve semitone positions

A-reference notes: A B♭ B C C♯ D E♭ E F F♯ G G♯. Structural point: All pitch classes; no unique scale tonic.



33.6 Modes of limited transposition

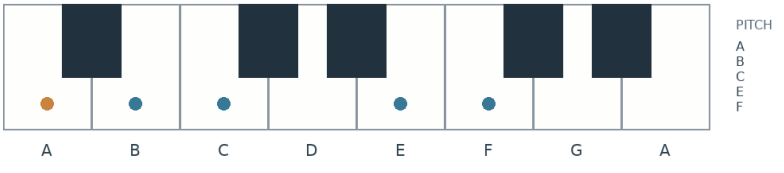
A mode of limited transposition returns to the same pitch-class collection after fewer than twelve distinct chromatic transpositions. The whole-tone and octatonic collections are familiar examples; Olivier Messiaen catalogued seven such modes. These are mathematically symmetrical collections, not automatic prescriptions for a harmonic progression or expressive mood. Test transpositional equivalence by comparing pitch-class sets rather than scale names.

33.7 Named regional-scale abstractions

The following names are commonly encountered in Western scale catalogs, but spelling, tonic and customary usage may vary. Their A-transposed collections illustrate intervals only. They must not be presented as sufficient accounts of Japanese or Persian performance traditions.

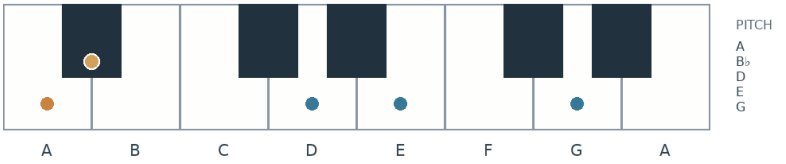
Hirajōshi, selected Western form · 1 2 ♭3 5 ♭6

A-reference notes: A B C E F–A. Interpretive caution: Terminology and interval variants differ by source.



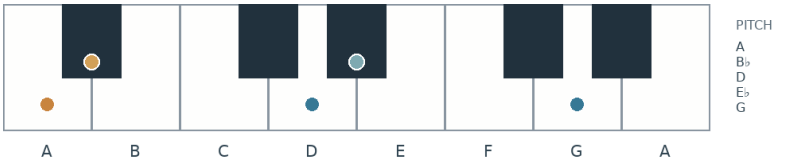
Insen, selected Western form · 1 ♭2 4 5 ♭7

A-reference notes: A B♭ D E G–A. Interpretive caution: A reference abstraction, not a whole performance tradition.



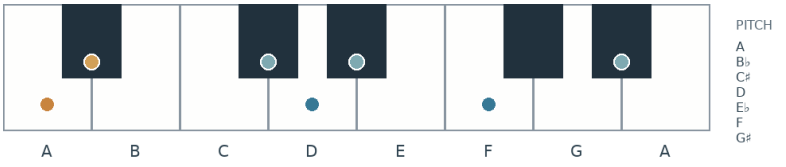
Iwato, selected Western form · 1 ♭2 4 ♭5 ♭7

A-reference notes: A B♭ D E♭ G–A. Interpretive caution: A reference abstraction with variant naming.



Persian scale, Western catalog label · 1 ♭2 3 4 ♭5 ♭6 7

A-reference notes: A B♭ C♯ D E♭ F G♯–A. Interpretive caution: Not equivalent to Persian dastgāh.



33.8 Beyond twelve-tone Western scale lists: maqam and raga

An Arabic maqam encompasses habitual melodic phrases, ajnas (component melodic groups), modulation possibilities, ornamentation, tonal emphasis and intonation. Its sayr or melodic pathway cannot be fully specified by selecting seven Western piano keys. A specific maqam study needs authoritative examples and tradition-sensitive listening; microtonal pitches may not be reproducible on a standard equal-tempered keyboard.

An Indian raga is likewise not merely a fixed Western scale transposed to A. Characteristic ascent and descent, recurring phrases, emphasized tones, ornaments, register and performance context inform musical identity. Treat A as an analytical reference or selected drone only when appropriate to the actual example; do not assert that an arbitrary A-based catalog entry constitutes a faithful raga.

For cross-cultural prompting, request an informed stylistic study, cite a verified reference recording or notated source where permitted, and state the limitations of the available generator. Do not claim that naming a maqam or raga guarantees culturally or technically faithful output.

33.9 Comparative A-reference studies

Study I · A Phrygian dominant versus A double harmonic major. Both contain A–B♭–C♯–D–E–F. Only degree 7 changes: G natural versus G♯. Construct matched short melodies with A in the bass and inspect the seventh before deciding whether the intended collection was realized.

Study II · A Dorian versus A Aeolian. Both contain A–B–C–D–E–G. The sixth degree changes from F♯ to F natural. Hold the A center, rhythmic outline and instrumentation constant in the written specification.

Study III · A whole tone versus A octatonic half–whole. Compare six-note whole-step symmetry with an eight-note alternating-semitone collection. Describe the exact intended pitch classes and report any output whose pitches cannot be verified as uncertain.

33.10 From scale formula to a musical prompt

A useful specification identifies the reference pitch, exact pitch collection, characteristic relationships, intended register, bass or drone, phrase destinations, instrumentation, and which properties can be checked by listening or transcription. A scale name alone does not establish rhythmic events, note order, chord sequence, stylistic authenticity or reliable model compliance.

COPY-READY PROMPT 01 · A double harmonic major

> Compose a short instrumental passage centered on A using A, B-flat, C-sharp, D, E, F and G-sharp. Keep an A bass pedal and emphasize B-flat to C-sharp and G-sharp to A in the principal melody. End with a clear melodic arrival on A. Use a restrained arrangement so the specified pitches can be checked.

Verification note: The written instruction is a target, not evidence that a music generator produced exact pitches or durations.

COPY-READY PROMPT 02 · A Dorian versus A Aeolian

> Create two short instrumental variations centered on A, with the same rhythmic outline, tempo and instrumentation. For version one, use A Dorian: A B C D E F-sharp G. For version two, use A Aeolian: A B C D E F G. Emphasize the sixth degree in both versions. State which versions are requests rather than verified outcomes.

COPY-READY PROMPT 03 · A whole-tone collection

> Create a short, sparse instrumental texture using the A whole-tone collection A B C-sharp D-sharp F G. Sustain A as a reference tone but avoid claiming a

conventional major/minor tonic. Use a recurring ascending whole-step figure, then compare the recorded output with the requested pitch collection.

COPY-READY PROMPT 04 · A Phrygian dominant comparison

Compose two short A-centered melodies. In both, use A B-flat C-sharp D E F and a restrained drone on A. In the first, add G natural (A Phrygian dominant); in the second, use G-sharp (A double harmonic major). Preserve the intended melodic contour and inspect the seventh degree in each rendering.

33.11 Guided advanced exercises

A. Compare A harmonic minor (A–B–C–D–E–F–G♯) with A Phrygian dominant (A–B♭–C♯–D–E–F–G). Identify the three altered degrees (2, 3 and 7), and specify what must remain fixed in an audio comparison.

B. Construct A Lydian dominant and A Mixolydian. Identify the altered fourth, explain the harmonic implication, then write two separate musical instructions.

C. Compare A minor pentatonic and the A minor blues collection. Add E♭ without asserting that a six-note list captures blues timing, bending or performance practice.

D. Write a specification contrasting A whole tone and A octatonic half–whole. State the differing cardinalities, step patterns and evidence you would need to verify compliance.

E. Describe why a text prompt naming a specific Arabic maqam or Indian raga cannot establish authentic intonation, ornamentation or melodic pathway. Identify a tradition-specific source you would need before making any claim of fidelity.

F. Choose one verified seven-note scale. Supply its exact A-reference collection, a four-bar melodic intention, one copy-ready music-generation prompt, and a short verification rubric.

33.12 Chapter summary and final Prompting Module

CHAPTER SUMMARY

Altered degree symbols specify deviations from a major-scale reference, but named scales vary in theoretical purpose. A reference pitch is not automatically an audible tonic. Interval patterns, transpositional symmetry, melodic emphasis and tradition-specific practices must be distinguished. The musical specification remains a hypothesis until its acoustic realization is checked.

FROM THEORY TO PROMPTING

Specify a collection by named pitches and degree formula; state whether A is a tonic, drone or reference note; assign a phrase goal and audible characteristic; then use the actual available tool controls and record the resulting evidence.

COPY-READY PROMPT · FINAL SCALE STUDY

> Plan a sixteen-bar instrumental scale study with A as the sustained bass reference. In bars 1–8, use A Dorian (A B C D E F-sharp G) and make F-sharp audible as its characteristic natural sixth. In bars 9–16, change to A Aeolian (A B C D E F G) and make F natural audible in a related melody. Keep tempo, meter and instrumentation consistent. Produce a written bar plan before generation; afterwards, report which pitch differences are verified and which remain uncertain.

PROMPT LANGUAGE · WHAT EACH PART MEANS

The sixteen-bar span specifies length; A as bass reference anchors comparison without claiming a cadential key. The two spelled collections differ only at degree 6. The bar grouping tells the performer or generator where to attempt the shift. "Verified" must be reserved for audible or transcribed evidence.

GUIDED VARIATIONS

1. Replace the Dorian/Aeolian pair with A Phrygian dominant/A double harmonic major. 2. Compare a diatonic collection with an A whole-tone collection, explicitly avoiding ordinary tonic-function claims. 3. Move the same written exercise to notation or MIDI to establish the exact notes independently of text-to-audio generation.

YOUR TURN

Prepare a one-page comparative specification including two scale-degree formulas, the two A-spelled collections, your intended musical contrast, a copy-ready prompt, and a criterion for independently checking each characteristic interval.

LISTEN, EVALUATE & REVISE

Record intended and observed pitch collections separately. If the recording does not allow a reliable determination, write "unverified." Change one documented instruction at a time where possible, but acknowledge uncontrolled changes inherent in independent audio generations.

SELECTED SOURCES AND SCOPE

Open Music Theory, "Collections and Scales" — openmusictheory.github.io/scales2.html (whole-tone, octatonic and limited transposition).

Ian Ring, "A Study of Musical Scales" — ianring.com/musictheory/scales/ (cataloged pitch-class families and modal relationships).

Maqam World, "Arabic Maqam" and "Arabic Jins" — maqamworld.com/en/maqam.php and maqamworld.com/en/jins.php (maqam as more than a scale).

Digital Arabic Maqām Archive — digitalarabicmaqamarchive.net/en (historic theoretical systems, melodic pathways and tuning resources).

Scope limitation: These Western twelve-tone formulas are curated pedagogical abstractions. The inventory does not claim to enumerate all possible scale systems, and the named regional entries should be cross-checked against tradition-specific scholarship before any claim of cultural fidelity.

CONCLUSION: FROM MUSICAL KNOWLEDGE TO COMPOSITIONAL JUDGMENT

The preceding chapters have treated musical understanding and computational generation as connected but distinct activities. The composer decides what musical relationships should be present; a musical specification represents those decisions; an interface conveys some portion of the specification; and a realized performance or generated recording provides evidence of what actually occurred. The distance between those stages is not a defect to conceal. It is the central problem that an informed composer learns to manage.

The conclusion draws together the book's cumulative foundations, harmonic and formal reasoning, prompting techniques, and evaluation practices. It then asks the reader to complete one integrated study using the established Theme A material. The objective is not to make the longest or most ornate prompt. It is to produce a musically justified, auditable plan, and to distinguish the written intention from what can be verified in sound.

C.1 The knowledge accumulated across the book

Pitch, interval, register, rhythm, meter, and timbre form the vocabulary of the smallest musical events. Scales and modes organize pitch collections around possible tonal centers. Triads and seventh chords establish harmonic materials, while Roman numerals describe their functions relative to a declared key. Cadence, melodic contour, and voice leading provide evidence of phrase organization; extensions, mixture, tonicization, and modulation broaden harmonic possibilities without replacing the need to hear where the music is going.

At a larger scale, an arrangement is not merely a list of instruments. It specifies where parts enter, what roles they perform, how texture changes, and how those changes articulate formal sections. The five levels of the book lead from an accurately named note or chord to a formal plan with testable expectations. None of these concepts becomes obsolete when a computational system participates in realization. The system makes the composer's decisions more important to articulate, not less important to understand.

An analytically correct phrase in a prompt should answer a real musical question. "C major" identifies a proposed tonal framework; it does not prove C sounds like home. "G7–C" identifies a dominant-to-tonic harmonic relation; it does not, without phrase evidence, certify a cadence. "A7–Dm" can tonicize ii in C major if the harmonic context supports that hearing; it does not require a permanent change of key. The value of technical language is that it makes these distinctions available for reasoned choices and independent checks.

C.2 From musical thought to an executable specification

A composition brief describes an intention, often in broad language. A musical specification resolves the parts of that intention which matter to the work: tonal center, material, meter,

tempo with its beat unit, harmonic rhythm, phrase goals, form, instrumental roles, and evidence criteria. A prompt is one possible encoding of that specification for a particular interface. These are not interchangeable documents. The composer should keep a stable source specification even when changing tools or rewriting instructions for a different system.

A clear specification also identifies degrees of precision. Some features can be stated exactly in symbolic material: a written pitch, chord spelling, measure count, or chord-by-chord plan. Other features are performance or interpretation goals: a convincing new center, a quiet texture, or an audible sense of closure. If the tool only accepts prose, both kinds can be requested, but neither becomes verified by being typed. If notation, MIDI, or reference audio is supported, those inputs may represent parts of the target more directly; their availability and reliability must be established for the actual interface.

The resulting document is useful beyond generation. It can guide a performer, an arranger, a notation workflow, a DAW session, or an analytical review of a recording. This makes the method portable even as particular platforms, controls and model behaviors change.

C.3 The full composition and verification cycle

A reliable creative process can be described as six linked decisions. First, articulate the musical intention in terms that a listener could recognize. Second, construct the intended pitches, rhythms, harmonies and sectional plan with correct theory. Third, record the source specification before submitting a request to any system. Fourth, translate the source into the inputs actually supported by the selected application. Fifth, compare the resulting sound with the source; distinguish observation, transcription, and inference. Sixth, revise a documented variable or change the mode of realization if the needed control is unavailable.

This cycle does not imply that a single text edit will isolate one variable in a stochastic generator. Two renders may differ in phrasing, instrumentation, balance and harmonic content even if their written instructions differ in only one place. A useful comparison therefore records what was intended to change and what else changed unexpectedly. The Harmony Decision Record, specification and take log serve different functions: one explains the composer's rationale; one preserves the target; and one records the observed result.

C.4 One musical idea at three levels of precision

The book's recurring Theme A supplies a controlled example. In C major, with one chord per measure, the eight-bar harmonic plan is C | G | Am | F | C | F | G | C. In Roman numerals, it is I | V | vi | IV | I | IV | V | I. The meter is 4/4 and the tempo is quarter note = 96 beats per minute. The final G–C offers a dominant-to-tonic relation; its status as a convincing phrase-ending cadence depends on melodic, rhythmic and performance evidence not encoded by the chord list alone.

Artistic brief: "Create a restrained, piano-led instrumental idea with clear harmonic motion and a settled ending." This names texture and intention but leaves most construction open. Harmonic plan: "Use Theme A in C major, eight measures, one written chord per measure,

4/4 at quarter note = 96 BPM." This adds inspectable structure. Complete specification: state the harmonies by bar, assign instrumental roles and section boundaries, identify any intended tonicization or modulation, and define the evidence needed to determine whether the audio corresponds to the plan. The three descriptions concern the same composition; their degrees of explicitness differ.

Greater detail is useful only where it represents an actual decision. A prompt can be lengthy and still musically ambiguous. Conversely, a short source specification can be excellent when every required musical relation is supported by reliable symbolic control. Precision is a property of the musical target and the evidence available, not a count of words.

C.5 What generative systems can and cannot establish

Text-to-audio generation may be valuable for exploring timbre, gesture, texture and possible arrangements. It may also interpret explicit harmonic or formal instructions approximately, inconsistently or not at all. The book does not treat natural-language chord symbols as universal executable commands. Suno, Udio and comparable applications should be approached through the actual controls, documentation and tested behavior available to a user at the time of use. A text-analysis model can explain a written progression accurately while a separate music model fails to realize it; the two outcomes must not be conflated.

Evidence should be reported at the level it supports. "Requested" identifies the written target. "Heard" records a listening observation. "Transcribed" supplies a documented interpretation of actual audio. "Verified" should be reserved for a claim supported by adequate musical evidence. "Uncertain" or "unverified" is the correct result when texture, masking or missing source data prevent a reliable determination. Independent musical judgment includes the willingness not to overstate a result.

C.6 Final applied composition study — Theme A

This study is the culminating exercise. It extends the established 40-bar plan of Chapter 32 rather than replacing it with a different composition. The reader should work from the immutable source framework, make explicit arrangement and phrase decisions, and produce a traceable record from planning through evaluation. It can be completed as a fully notated or specified design without access to a generator; where audio production is possible, the same written target becomes the benchmark for evaluating the realization.

Fixed source conditions. Form: five sections of eight bars, totaling 40 bars. Meter: 4/4. Tempo: quarter note = 96 BPM. Harmonic rhythm: one written chord per bar. Nominal duration: 100 seconds without additional bars or expressive timing. Tonal plan: C major → G major → C major. Theme A remains C | G | Am | F | C | F | G | C in bars 1–8; later sections use the harmonic plan already established in Chapter 32. The reader must not silently substitute a borrowed-iv or applied-dominant experiment for that source.

Stage 1 — Make the source legible. Copy the 40-bar harmonic plan into a specification with numbered measures, five section boundaries, tempo and beat unit. Spell any altered chords

that bear on the tonal move, including D7 where it functions as V7 of G. Identify the candidate Am pivot as vi in C and ii in G, and distinguish possible pivot function from an audibly established new tonal center.

Stage 2 — Compose the missing information. For each section, decide how melody, bass movement, articulation, dynamics, density and instrument entrances will communicate the plan. Assign musical functions to each instrument rather than naming instruments without roles. Mark where phrases are intended to conclude, how G becomes plausible as the central key, and which later events reestablish C. Do not claim that any V–I chord pair alone proves a cadence.

Stage 3 — Define verification before generation. Write one evidence question per major objective: Does the opening establish C? Does the modulation region give convincing support to G? Can listeners identify the planned entrances? Are section lengths and chord order recoverable? Does the final passage return to C with an audible phrase ending? State whether each question requires attentive listening, bar-by-bar transcription, notation/MIDI comparison, or another documented measurement.

FINAL STUDY · COPY-READY GENERATION PROMPT

> Create an instrumental composition from a fixed 40-bar plan in five eight-bar sections, in 4/4 at quarter note = 96 BPM, with one intended harmony per bar. Begin in C major and preserve the opening eight-bar progression C | G | Am | F | C | F | G | C. Develop the established middle sections toward G major, including the specified D7–G dominant relation; then restore C major in the final section and aim for an audible closing phrase. Begin with piano, introduce bass from bar 9, cello from bar 17 and brushed drums from bar 25, with a clear change of texture at bar 33. Keep the instrumental roles and harmonic plan perceptible. Treat these as musical targets to be checked against the resulting audio, not as guaranteed controls.

This paragraph is a prose translation of selected source requirements, not a substitute for the full 40-bar chord map. To conduct the study rigorously, retain the precise bar-by-bar harmony and any symbolic assets separately. Do not interpret the lack of an explicit chord list for every measure in this prose example as permission to change the fixed source.

Stage 4 — Produce and document. Where a tool is available, record its name, interface/version if known, date, submitted text, other controls, reference assets, generation settings and output identifiers. Preserve at least one original result. Where reliable score/MIDI realization is possible, record which elements it fixes and which expressive features remain interpretive. Avoid treating a second stochastic render as a controlled replacement of only one musical variable.

Stage 5 — Evaluate the musical evidence. Compare the recording with the written plan by section and measure where possible. Separate confirmed chord spellings or formal boundaries from impressions of mood or energy. Identify at least one fulfilled instruction, one unfulfilled or uncertain instruction, and one musical feature that emerged without having been specified. If no audio is produced, complete a predicted-evidence checklist and label it as a planning exercise rather than a test result.

Stage 6 — Revise with reasons. Choose one discrepancy that matters to the composition. Record the existing requirement, observed result, the proposed change, and the evidence that would make the revised version more faithful. The revision may be a clearer prompt, a symbolic reference, a different supported input method, or a manual compositional edit. Preserve the first take and explain the trade-off rather than replacing the record with an unsupported success claim.

C.7 The final submission and assessment standard

The final submission contains five inspectable artifacts: (1) a complete 40-bar source specification; (2) a concise account of harmonic, formal and orchestration decisions; (3) a model-facing prompt or equivalent realization instructions; (4) a source-versus-result evaluation with evidence labels; and (5) a documented revision decision. Audio files, score excerpts, transcriptions or a project file are optional supporting evidence where available and authorized. The prose alone cannot certify a sounding result.

The assessment is musical rather than promotional. Does the harmonic analysis fit the actual governing key? Are meter, tempo, beat unit and section lengths coherent? Are the musical intentions sufficiently specific to evaluate? Does the chosen realization method genuinely support the level of precision claimed? Are observations distinguished from assumptions? Are failures and uncertainties recorded accurately? Finally, do the decisions contribute to an audible and coherent composition rather than merely satisfying a long list of keywords?

A successful study may include an imperfect generated take. The achievement lies in the quality of the specification, the rigor of comparison, and the composer's ability to identify the next responsible musical decision. A superficially impressive recording whose harmony and form were not checked does not demonstrate the same competence.

C.8 From the prompt to independent judgment

The composer's prompt is ultimately a means of communicating decisions, not a replacement for making them. Musical theory permits a person to name intervals and chords correctly, but judgment determines why they matter in a particular phrase. Harmony can identify motion and expectation, but the sounding realization must establish whether an arrival is convincing. A compositional plan creates form on paper; listening tests its form in time.

Computational applications enlarge the range of possible realizations and comparisons. They also make clear specifications, controlled records and skepticism about unverified claims essential. The enduring skill is not command of a particular interface. It is the ability to hear a

musical problem, construct an intelligible solution, communicate it faithfully, test it against evidence, and revise without losing the musical intention.

The written prompt is therefore neither the finished music nor a guarantee of its outcome. It is one artifact within a larger practice of composition. The composer remains responsible for the musical relationships requested, the quality of the listening undertaken, and the decisions retained in the work.

APPENDIX A: PROMPT TEMPLATES

How to use these templates

A prompt states an *intended musical result*, not a guarantee. Start with the music you want to hear, write its relevant notes or harmonic plan, and then adapt that plan to the controls actually provided by your chosen tool. A language-model analysis and an audio-generation request are separate tasks. The former can analyze written chords; the latter must be checked against the sound it actually produces.

Square brackets in the templates indicate **fields to fill**, unless identified as literal section markers supported by a particular tool. Do not assume every music system recognizes bracketed chords, structural tags, negative terms, MIDI input or precise bar durations. Consult the tool's current documentation before treating any syntax as operational.

A.1 Beginner musical brief

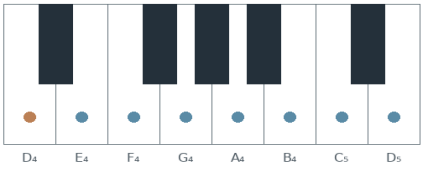
Purpose: Make an introductory idea specific enough to evaluate.

- Musical focus: [tonal center or mode]
- Tempo and meter: [quarter-note BPM], [time signature]
- Harmony: [chord sequence]
- Texture: [instruments and their roles]
- Form: [number of bars or broad sections]
- Intended character: [one or two listening descriptions]
- Verification question: [what audible event would confirm the intention?]

Example: "Instrumental piano and bass study, C major, quarter note = 96 BPM, 4/4, eight bars, one chord per bar: C | G | Am | F | C | F | G | C. Keep the opening sparse. Evaluate whether the ending sounds settled after the final G–C motion."

Musical note: The written G–C suggests V–I in C major, but the chords alone do not establish an authentic cadence. Phrase ending, rhythm, melody and realization determine the cadential effect.

A.2 Modes with a clear tonic



D Dorian

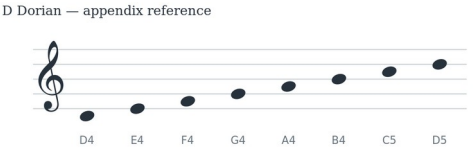


FIGURE 53 · B natural is the characteristic sixth above D.

Purpose: Distinguish modal identity from merely using the same white-key pitch collection.

Template: "Create a [style/texture] passage centered on [tonic] in [mode], using [pitch collection]. Emphasize [characteristic scale degree] in a melody above [drone or modal vamp]. Avoid an unintended competing tonic. Verify both the characteristic note and the heard tonal center."

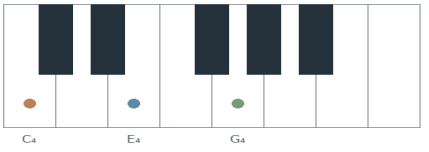
Introductory examples:

Mode	Center	Natural-note collection, starting on its tonic	Characteristic point of comparison
Ionian	C	C D E F G A B	Major tonic, natural 7
Dorian	D	D E F G A B C	Minor tonic with natural 6 (B)
Phrygian	E	E F G A B C D	Minor tonic with flat 2 (F)
Lydian	F	F G A B C D E	Major tonic with sharp 4 (B)
Mixolydian	G	G A B C D E F	Major tonic with flat 7 (F)
Aeolian	A	A B C D E F G	Natural-minor tonic with flat 6 (F)
Locrian	B	B C D E F G A	Diminished tonic triad and flat 5 (F)

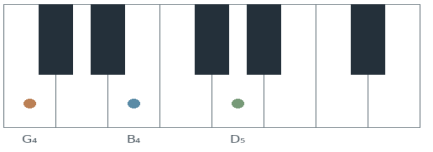
Example: "Sparse D Dorian study; D remains the center, with Dm7–G7 as a modal vamp. Make B natural audible as the natural sixth in the melody. Do not treat the G7 chord as an instruction to modulate to C."

Verification: Shared notes do not mean shared modal center. Identify the tonic from musical emphasis, bass, harmonic context and phrase structure.

A.3 Chord construction and inversion



Root



First inversion

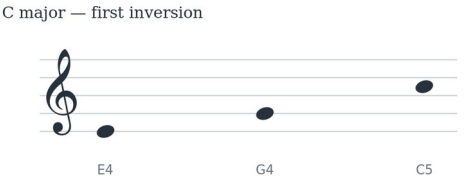


FIGURE 54 · Chord root C, bass E.

Purpose: Specify pitches without mistaking chord names for realized voicings.

Template: "Use [chord], spelled [pitch names], in [root position/inversion], with bass [note] and upper voices [specified pitches/registers]. Maintain the chosen voicing across [bars], then compare what was actually heard."

Example: "Use a C major triad, C–E–G. Compare root-position C–E–G with first-inversion E–G–C. These contain the same pitch classes but place a different chord member in the bass."

For a keyboard diagram, display only the range occupied by the illustrated notes, with thin key outlines and small consistently colored dots precisely aligned to their keys.

A.4 Harmonic function and phrase endings

Purpose: Move from chord names to musical relationships.

Template: "In [key], use [chord sequence], with Roman numerals [analysis]. Place the intended cadence at [phrase ending]. Specify the necessary melody, bass, voice leading or rhythmic articulation if the cadence type matters; otherwise describe it as a potential cadence."

Example: "In C major, Dm7 | G7 | C is ii7–V7–I. The G7 chord contains B, which tends toward C, and F, which may resolve to E. Realize those motions and a genuine phrase ending before evaluating the strength of the authentic cadence."

Contrast: In A minor, Am | Dm | E7 | Am is i–iv–V7–i. E7 is the *primary* dominant, not V7/iv.

A.5 Harmonic color: one change at a time



FIGURE 55 · F–A–C compared with F–A♭–C.

Purpose: Test the musical effect of one theoretical decision.

Control: C | G | Am | F | C | F | G | C

Borrowed-iv alternative: C | G | Am | F | C | Fm | G | C

Only bar 6 changes from F major (F–A–C) to F minor (F–A♭–C). In C major, Fm is the borrowed minor subdominant, iv, associated with the parallel minor collection. Describe the difference heard without assuming that a descriptive prompt guarantees the requested chord.

Applied-dominant test: If a progression contains Am7 | Dm, compare with A7 | Dm in the same C-major context. Both initial chords have A, E and G; the change C → C♯ in A7 gives a leading tone toward D. In C major, A7 is V7/ii. Keep the following Dm unchanged.

A.6 ARR-SPEC: a complete harmonic map

Purpose: Record form and harmony before adapting the work to a generator.

Field	Required entry
Working title	[title]
Tempo and meter	[BPM and beat unit], [meter]
Sections	[names and exact bar ranges]
Tonal plan	[starting, middle, returning centers]
Harmony	[one explicitly located chord event per intended bar, or specify other harmonic rhythm]
Melodic plan	[known melody, contour instruction, or NOT SPECIFIED]
Cadential targets	[location and musical evidence needed]
Instrument entries	[instrument, bar, behavior and exit]
Generation tool	[name and verified input fields]
Evaluation	[what audio evidence would count as success?]

Continuing 40-bar study: 4/4, quarter note = 96 BPM, one chord per bar; five eight-bar sections. Nominal duration = 100 seconds without added bars or expressive timing.

Formal interpretation: Am at bar 19 can act as vi in C and ii in G. D7 at bar 20 introduces F♯ and prepares G. Continued G-centered harmony supports the new key area. The last G7–C supports the return to C, subject to the realized phrase ending.

A.7 Arrangement timeline

Purpose: Specify what instruments *do*, not merely what instruments are present.

Template: "Bars [range]: [instrument] performs [role] at [density/dynamics]. At bar [number], [instrument] enters or exits. Keep [musical invariant] unchanged. Confirm the resulting texture against the specified times."

40-bar example: Piano throughout; bass enters at bar 9; cello enters at 17; brushed drums enter at 25; texture thins at 33 and rebuilds from 37. These are requests to be verified in the eventual performance, not claims about existing audio.

A.8 Controlled generation comparison

Purpose: Make a meaningful A/B test without mislabeling randomness as experimental control.

Baseline B0: [complete fixed specification, settings, date and reference assets]

Change in B1: [exactly one intended written field]

Predicted difference: [specific musical feature expected to change]

Evidence: [bar/time, listening notes, transcription if possible]

Decision: [keep / revise / reject / unverified]

Rule: Submit separate generations. Change one *written variable*, and record any other differences the model introduces. A single-variable prompt edit does not guarantee a single-variable audio result.

A.9 Tool adaptation without invented syntax

For text-to-audio tools: Express style and instrumentation as clear prose; supply the harmonic and section plan using only fields and formats verified for the current tool version. Do not assume lyrics boxes, square-bracket chords, negative tags, section-level editors or BPM controls operate identically across tools.

For symbolic or score-oriented tools: When they actually accept a score, chord chart or MIDI file, supply that representation to preserve more exact note or rhythm information. Verify the import and playback results.

For language-model theory analysis: Provide the key, note spellings, chord order, voice assignments where known, and the requested analytical framework. Ask for a compact checkable analysis. Independently verify the theory; a fluent explanation is not evidence of audio compliance.

A.10 Printable verification record

Field	Intended	Observed or established	Status
Key / modal center	☐	☐	Pass / partial / fail / unverified
Chord spellings	☐	☐	Pass / partial / fail / unverified
Phrase / cadence	☐	☐	Pass / partial / fail / unverified
Tempo / meter / bar map	☐	☐	Pass / partial / fail / unverified
Voicing / voice leading	☐	☐	Pass / partial / fail / unverified
Instrument entries	☐	☐	Pass / partial / fail / unverified

Field	Intended	Observed or established	Status
Control/experiment variation	☐	☐	Pass / partial / fail / unverified

Interpretation rule: "Not observed" is not "failed." If audio or sufficient performance information is unavailable, mark the outcome *unverified*. Do not infer a cadence, modulation, precise voicing or exact instrument entrance from the prompt alone.

APPENDIX B: DIAGNOSTIC CHECKLISTS

B.1 Level 1 – Foundations

☐ The intended tonic and mode are named and their pitch collection is correctly spelled.

☐ The melody or proposed melody distinguishes the tonal center from merely starting on a given note.

☐ Chords contain their correctly spelled root, third and fifth; sevenths or other extensions are identified separately.

☐ Roman numerals match the declared key or mode; inversions are not confused with roots.

☐ Tempo states the beat unit and BPM; meter is separately specified.

☐ Harmony and harmonic rhythm are both specified when relevant.

☐ Descriptions such as "bright" or "dark" are identified as expressive intentions, not automatic properties of a scale.

☐ For generated audio, musical details are classified as heard, transcribed or unverified.

Introductory modal centers: C Ionian, D Dorian, E Phrygian, F Lydian, G Mixolydian, A Aeolian and B Locrian. All use the natural-note collection, but each requires its own tonic emphasis.

B.2 Level 2 – The Line and the Phrase

☐ Functional labels are appropriate to the actual tonal context.

☐ The chord spelling and bass motion have been considered separately from the Roman numeral.

☐ A proposed cadence occurs at a phrase ending rather than being inferred solely from consecutive chord symbols.

☐ A half cadence, when claimed, arrives on the governing key's dominant.

☐ A deceptive cadence, when claimed, has the necessary dominant expectation, deflection and musical context.

☐ Passing, neighbor, suspension and appoggiatura tones are classified by their actual approach, accent and resolution.

☐ Voice-leading claims identify which specific voice moves by which interval.

☐ ARR-SPEC bar ranges match the chord map and intended phrase structure.

B.3 Level 3 – Color and Chromaticism

☐ Extensions and alterations are correctly named and spelled.

☐ A borrowed chord is compared with the *parallel* key or mode, not mislabeled as a relative-key chord.

☐ A secondary dominant is labeled by the chord it tonicizes; the primary dominant is not called a secondary dominant.

☐ Applied leading tones and expected resolutions are described as intended unless realized.

☐ Voicing states actual note positions or acknowledges when they are unspecified.

☐ Diatonic planing and chromatic planing are distinguished; a chord sequence alone is not evidence of parallel voice motion.

☐ A/B comparisons identify the exact written substitution and disclose additional audible changes.

B.4 Level 4 – Architecture and Motion

☐ Tonicization is not declared modulation without sufficient evidence of a new tonal center.

☐ The pivot chord, where used, is analyzed correctly in both tonal contexts.

☐ The new key area is supported by appropriate harmony and formal emphasis.

☐ The return to the home key is distinguishable from a passing tonic chord.

☐ Sections are mapped to non-overlapping, correctly counted bar ranges.

☐ Instrument entries, exits and roles are scheduled independently from the harmonic plan.

☐ The exact duration is identified as *nominal* if expressive timing or tool generation can differ.

B.5 Level 5 – Professional Meta-Arrangement

☐ Musical specification is distinguished from platform instructions and from verified audio.

☐ The baseline prompt, settings, reference assets and dates are preserved for the experiment.

☐ Any one-variable claim refers precisely to the *written prompt*; unintended changes in generated sound are recorded.

☐ Tool-specific options are used only if supported in the actual tool/version.

☐ A suspected audio defect has been located in bars or seconds where reliably possible.

☐ Editing or stem separation is not presented as a guaranteed way of correcting the underlying harmony.

☐ Copyright, input permissions and export conditions are checked where applicable.

☐ The result is marked pass, partial, fail or unverified, with evidence rather than assumption.

B.6 Harmony Decision Record – Blank template

Field	Entry
Baseline ID and date	☐
Source specification	☐
Requested location	[bar/section]
Observable location	[bar or timestamp, if known]

Field	Entry
Musical intention	☐
Actual evidence	[heard / transcribed / unavailable]
Audible issue	☐
Theoretical diagnosis	☐
One intended written change	☐
Predicted musical effect	☐
A/B result	☐
Uncontrolled differences	☐
Decision	[keep / revise / reject / unverified]

B.7 Five-step harmonic check

1. **Find home:** identify the most convincingly established tonic or modal center.
2. **Identify harmony:** check chord notes and root/bass before assigning Roman numerals.
3. **Trace motion:** identify where bass and individual voices actually move; do not infer precise voice leading from chord symbols.
4. **Check tension and release:** identify leading tones, chord sevenths and expected resolutions within the appropriate style.
5. **Check the phrase:** determine whether a cadence or modulation has really been established in the musical context.

Common correction: In C major, A7 → Dm is V7/ii → ii. In A minor, E7 → Am is V7 → i. In G major, E7 → Am is V7/ii → ii.

B.8 Continuing-work verification – Theme A

The approved study remains 40 bars in 4/4 at quarter note = 96 BPM: A (1–8), A′ (9–16), B (17–24), C (25–32), A″ (33–40). Intended center moves C major → G major → C major; bass enters at 9, cello at 17 and brushed drums at 25; texture thins at 33 and rebuilds from 37.

The harmony for these sections is fixed in Chapter 22 and Appendix A. Check any rendered performance against that map; do not alter the source map to match a generated deviation. No completed melody, cadence realization or audio is implied by the written study.

APPENDIX C: GLOSSARY

Definitions follow the Western-theory curriculum. Descriptive or affective language is not treated as part of the definition of a musical structure.

Accent: Emphasis on a note or beat, arising from dynamics, duration, meter or articulation.

Altered chord tone: A chord member raised or lowered from the form used as reference, such as the flattened ninth of a dominant seventh.

Appoggiatura: Usually an accented non-chord note approached by leap and resolved by step; the details depend on style.

ARR-SPEC: The book's structured musical specification covering meter, bar map, harmony, tonal plan, instrumental roles and intended evidence of realization.

Authentic cadence: A phrase-ending dominant-to-tonic arrival (V–I or V–i). In common-practice analysis, perfect and imperfect authentic cadences are distinguished by inversion and the soprano's ending scale degree. Chord labels alone do not establish the full musical event.

Borrowed chord / modal interchange: A harmony interpreted as drawn from a *parallel* key or mode with the same tonic. Fm in C major may be analyzed as borrowed iv from C minor.

Cadence: Musical punctuation at the end of a phrase, involving harmonic motion and often melody, meter and articulation.

Chromatic mediant: A relationship between triads with roots a third apart, commonly sharing one tone and differing by chromatic alteration; definitions vary across analytic traditions. The presence of such a relationship alone does not establish modulation.

Chord: A harmonic grouping of pitches; its precise identity depends on pitch content and context.

Chord extension: A pitch named beyond the seventh in tertian chord nomenclature, for example a ninth, eleventh or thirteenth; its actual voicing need not include every intervening chord member.

Chord inversion: A placement of a chord tone other than the root in the bass. Inversion does not necessarily determine the register of all upper voices.

Chord root: The pitch from which a chord is named, not necessarily the piece's tonic or the sounding bass.

Close voicing: A relatively compact spacing of chord tones. It is not synonymous with root position or the complete spelling of an extended chord.

Consonance / dissonance: Relationships involving perceptual fusion, roughness, harmonic expectation and style-dependent stability; not fixed emotional labels.

Deceptive cadence: A phrase-ending dominant that resolves somewhere other than the expected tonic, commonly V–vi in major or V–VI in minor. A V–vi pair outside a phrase-ending context need not function as a deceptive cadence.

Diatonic: Belonging to the specified pitch collection or tonal system in the relevant context.

Dominant: In Western functional tonality, a chord or function directed toward tonic, commonly V or V7.

Double harmonic major: A heptatonic collection with interval pattern 1–3–1–2–1–3–1 semitones. E double harmonic major: E–F–G♯–A–B–C–D♯.

Drone: A sustained or recurring reference pitch that can support a modal or tonal center.

Dorian: Mode with degrees 1–2–♭3–4–5–6–♭7; introductory example D–E–F–G–A–B–C.

Escape tone: Typically an unaccented non-chord tone approached by step and left by leap in the opposite direction.

Half cadence: A phrase-ending arrival on the dominant harmony of the governing key.

Harmonic function: The contextual tendency of a chord to act as tonic, predominant or dominant, among other possibilities.

Harmonic rhythm: The rate or pattern at which harmony changes, distinct from tempo and meter.

Harmony Decision Record: A written account of musical intention, observed problem, diagnosis, one requested change, evaluation and decision.

Ionian: Major mode; introductory example C–D–E–F–G–A–B.

Key / tonal center: The pitch and associated harmony or pitch organization perceived as a musical point of reference or home.

Leading tone: Scale degree a semitone below the tonic, often tending upward toward it in functional harmony.

Locrian: Mode with degrees 1–♭2–♭3–4–♭5–♭6–♭7; introductory example B–C–D–E–F–G–A.

Lydian: Major-type mode with raised fourth; introductory example F–G–A–B–C–D–E.

Melodic contour: The pattern of rising, falling and repeating pitches in a melody, independent of exact interval sizes.

Meter: Organization of beats into recurring patterns of accent and grouping, such as 4/4 or 6/8.

Mixolydian: Major-type mode with lowered seventh; introductory example G–A–B–C–D–E–F.

Modal center: The note heard as home in a modal passage; it cannot be identified merely from the order in which notes are listed.

Modal interchange: See Borrowed chord.

Modulation: Establishing a new tonal center or key area over a meaningful musical span; a single chromatic chord is insufficient evidence.

Natural minor / Aeolian: Mode with degrees 1–2–♭3–4–5–♭6–♭7; introductory example A–B–C–D–E–F–G.

Neapolitan chord: Major triad built on lowered scale degree 2, conventionally used in first inversion as a predominant in common-practice harmony.

Non-chord tone: A note outside the chord sounding at a given moment; classification depends on actual melodic motion and rhythm.

Passing tone: A non-chord tone approached and left by step in the same general direction.

Pedal point: A sustained or repeated pitch, commonly in the bass, held while the other harmony changes.

Phrygian: Minor-type mode with lowered second; introductory example E–F–G–A–B–C–D.

Phrygian dominant: Mode with degrees 1–♭2–3–4–5–♭6–♭7. E–F–G♯–A–B–C–D. It differs from E Phrygian at scale degree 3.

Picardy third: Major tonic triad at the close of a work or section otherwise in a minor key.

Pivot chord: A chord interpretable in both the old and new tonal contexts, used in common-chord modulation.

Planing: Parallel movement of chordal sonorities; strict chromatic planing preserves interval structure, while diatonic planing may change the exact interval qualities.

Predominant: Harmony that commonly prepares dominant function, often ii or IV in major-key practice.

Prompt: A text or structured instruction intended to influence a model's behavior; not a score and not a guarantee of acoustic compliance.

Roman numeral: Key-relative harmonic label combining scale degree, chord quality and, where relevant, inversion or applied function.

Secondary dominant: An applied dominant of a non-tonic harmony in the current key. A7 → Dm in C major is V7/ii → ii; E7 → Am in A minor is the primary V7 → i.

Stem separation: A process attempting to extract individual instruments or sources from a mixture; outputs may contain leakage and artifacts.

Suspension: A tone prepared in one harmony, retained across a change and then typically resolved down by step in common-practice counterpoint.

Tempo: Rate of the beat, often expressed in beats per minute with a specified beat unit.

Timbre: Perceptual sound quality distinguishing sources with similar pitch and loudness.

Tonic: The principal note or harmony of a tonal or modal context, distinct from the root of every chord.

Tonicization: Local emphasis on a harmony as a temporary tonic without necessarily establishing a new key over an extended span.

Tritone substitution: In jazz practice, replacing a dominant with a dominant whose root is a tritone away, sharing essential guide-tone pitch classes under enharmonic interpretation.

Voice leading: Movement of individually identifiable voices through successive harmonies.

Voicing: Distribution of chord pitches across instrumental parts or registers, including omissions, doublings, spacing and inversion.

APPENDIX D: THE FOUR-WEEK INTENSIVE

This intensive condenses the five-level curriculum into four guided study weeks; it does not replace the chapters. Theme A develops from an eight-bar C-major progression into a 40-bar arrangement. The companion Interactive Lab offers exercises across the chapters, while the written tasks remain independently usable.

Week 1 – Pitches, intervals, modes, and chords



FIGURE 56 · C major in root position: C–E–G.

Learning goal: Explain how notes form intervals, scales, triads and progressions, and distinguish pitch collection from tonal center.

Read: Foundations (Chapters 1–10, including Chapter 6.5).

Practice: Identify the notes of C major; construct C, Dm, Em, F, G, Am and Bdim; verify their Roman numerals I, ii, iii, IV, V, vi and vii°. Then list the same natural notes beginning on C, D, E, F, G, A and B and explain why simply rotating a scale does not automatically establish a new modal center.

Theme A: Label one chord per bar in C | G | Am | F | C | F | G | C. With eight 4/4 bars at quarter note = 96 BPM, nominal duration is 20 seconds.

Deliverable: An eight-bar harmony map with chord spellings, Roman numerals, tempo, meter and one paragraph distinguishing written harmony from audible realization.

Check: If you call G–C an authentic cadence, explain what additional phrase-ending evidence would be required.

Week 2 – Phrase, function, melodic behavior and voice leading

Learning goal: Explain how a chord progression acquires directional meaning in a phrase.

Read: Chapters 11–13.

Practice: Mark tonic, predominant and dominant possibilities within Theme A without forcing a T–S–D label onto every event. Contrast a melodic passing tone with a suspension by specifying actual note movement and accent. Explain why V–I by itself need not be an established cadence.

Theme A: Keep its eight written chords unchanged. Propose a phrase ending that could make the final G–C a clear authentic arrival; this remains a *proposal* unless a melody and sounding performance exist.

Deliverable: An eight-bar ARR-SPEC with a harmonic-function explanation, one proposed voice-leading detail and an explicitly conditional cadential claim.

Check: Do not call a dominant arrival a half cadence unless it occurs at a phrase ending in the correct key.

Week 3 – Reharmonization and harmonic color



FIGURE 57 · A7 is V7/ii in C major.

Learning goal: Distinguish borrowed harmony, applied dominants, extensions and voicings without changing their theoretical meaning.

Read: Chapters 14–19.

Practice A: Compare the approved Theme A bar 6 as F (IV in C) versus Fm (borrowed iv from C minor). Spell both chords and identify the single changed pitch A → A♭.

Practice B: In C major, compare Am7 → Dm with A7 → Dm. Spell both A chords and explain the C → C♯ alteration and A7's V7/ii role.

Practice C: Describe a compact and a spread voicing of one chord. State actual note registers if claiming precise voice movement.

Deliverable: Two separately written A/B prompts, predictions and a Harmony Decision Record. If no audio is available, record outcomes as unverified rather than inventing listening results.

Check: A Dorian IV-major vamp does not by itself constitute a modulation; a borrowed chord is not the same as a chord from the relative key.

Week 4 – Architecture, generation and critical production

Learning goal: Connect all five levels to an inspectable 40-bar compositional specification.

Read: Chapters 20–25, then the cross-cutting diagnosis in 26–28.5 and the capstone in 32. Use chapters 29–31.5 only when adapting to a particular tool.

Theme A – Fixed form:

At 4/4 and quarter note = 96 BPM, the nominal duration is 100 seconds. Piano is present throughout; bass enters at bar 9, cello at 17 and brushed drums at 25; texture thins at 33 and rebuilds from 37.

Practice: Identify Am at bar 19 as vi in C and ii in G. Explain how D7 introduces F♯ and supports G. Explain why the final G7 → C supports a return to the original key but does not guarantee an audible cadence.

Production task: If a usable model is available, generate the written specification and evaluate it with the Level 5 checklist. If not, produce a clearly marked *unrendered specification* and explain what evidence a later render would need.

Deliverable: A completed 40-bar ARR-SPEC, one well-defined alternative with exactly one intended written change, and a Harmony Decision Record reporting pass, partial, fail or unverified.

Assessment standard

A student completes the intensive when they can (1) spell and label the written musical material, (2) distinguish function from chord identity, (3) distinguish requests from actual acoustic evidence, and (4) justify a revision on musical grounds. Creative quality may also be discussed, but no arbitrary emotional label substitutes for correct theory.

When comparing keyboard diagrams, examine the indicated register and highlighted pitch classes. Then play or hear the corresponding material and verify that the characteristic notes and intervals are perceptible.

APPENDIX E: STARTER PROMPT PACK

These prompts are deliberately short. They are compositional intentions, not proven audio commands. Use the actual input fields supported by the selected generation system. When a prompt specifies chords, verify the resulting sound before reporting compliance.

E.1 Tonal foundation – one eight-bar sequence

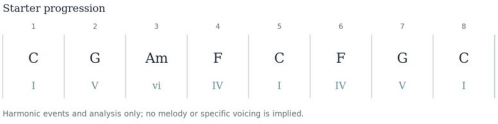


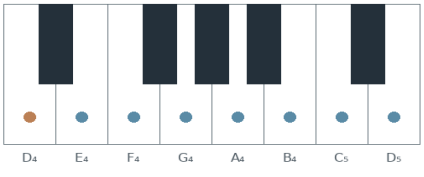
FIGURE 58 · Eight bars, one chord each; no specified melody.

Musical specification: C major, 4/4, quarter note = 96 BPM, one chord per bar: C | G | Am | F | C | F | G | C. Use sparse piano, with bass supporting the written roots.

Text adaptation: "Instrumental piano-and-bass harmonic study in C major, 4/4, quarter note = 96 BPM, eight bars, one chord per bar: C, G, Am, F, C, F, G, C. Keep the texture spare and make the closing G-to-C gesture perceptible."

Check: Confirm chord identities, pulse and position where possible. The final two written chords support a possible authentic cadence; the audio must be checked for a real phrase ending.

E.2 Mode comparison – D Dorian, not A minor



D Dorian

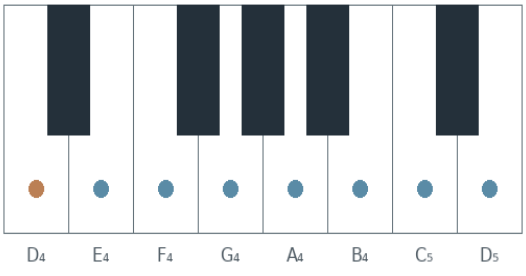


FIGURE 59 · D tonic; B natural is the modal sixth.

Musical specification: D–E–F–G–A–B–C with D centered. Dm7 | G7 repeated as a modal vamp, B natural in the melody, no implied need to resolve to C major.

Text adaptation: "Instrumental D Dorian vamp, Dm7–G7, D as the persistent center, B natural present prominently as the natural sixth, moderate groove, clear bass emphasis on D. Maintain the modal center without shifting toward C major."

Check: Compare the actual tonic emphasis and the presence of B natural. A note list alone does not establish D Dorian.

E.3 Function and applied dominant – a controlled pair

Control: "Short C-major harmonic study with Am7–Dm, all remaining musical and production directions unchanged."

Alternative: "Repeat the same C-major study with A7–Dm at the same location. Preserve the following Dm and every other written constraint."

Check: The intended difference is C → C♯ in the first chord. A7 is V7/ii and targets Dm. These are **two separate requests**, and the generated results may differ in unrequested ways.

E.4 Borrowed-color comparison – IV versus iv

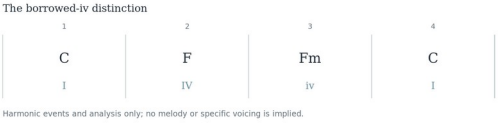


FIGURE 60 · A natural in F becomes A♭ in Fm.

Control: "C major, eight bars: C | G | Am | F | C | F | G | C, one chord per bar."

Alternative: "Keep the same specification, but replace the F major chord at bar 6 with F minor: C | G | Am | F | C | Fm | G | C."

Check: Bar 6 changes from F–A–C to F–A♭–C. Fm is borrowed iv in C major. Describe the actual musical effect rather than asserting a universal emotion.

E.5 Full-form production brief – established Theme A

Musical specification: The approved 40-bar form, 4/4, quarter note = 96 BPM, one written chord per bar; five sections A (1–8), A′ (9–16), B (17–24), C (25–32), A″ (33–40); C major → G major → C major. Chord-by-chord map stays in Chapter 22 and Appendix A.

Text adaptation: "Instrumental 40-bar study, five eight-bar sections, 4/4, quarter note = 96 BPM. Begin in C major, move toward G using Am–D7–G in the middle, sustain a G-major section, and return to C with G7–C. Piano throughout; bass joins at bar 9, cello at bar 17, brushed drums at bar 25; thin the texture at bar 33 and build again from bar 37. Use the attached authoritative 40-bar chord map wherever the selected tool supports detailed reference input."

Check: A text prompt alone may not produce exact section lengths or harmony. Record discrepancies; do not alter the original harmonic map to make the render appear compliant.

E.6 Minimal repair request

Template: "Preserve [verified part]. At [bar or time], the problem is [audible issue]. Change only the *requested* [one musical or production variable] toward [specific target]. Evaluate whether the target changed and log other differences."

Example: "At the final transition to C, the intended G7–C return is unclear. Request stronger bass and inner-voice guidance toward the tonic; where note-level controls exist, test F4→E4 as one possible seventh-resolution detail. Do not claim the original audio already contained that movement."

Decision categories: Pass / partial / fail / unverified. No audio means **unverified**, not passed.

APPENDIX F: TOOL LANDSCAPE REFERENCE

Verification date: 25 October 2026. This is a dated reference, not a permanent ranking of model quality or a guarantee of harmonic control. Music theory and the approved 40-bar specification remain unchanged when using different tools.

F.1 Choosing the representation

Musical need	Preferred input when genuinely supported	What must be verified
General style or texture	Descriptive text	Instrument roles, musical character, and unwanted additions
Exact notes and chords	Score, symbolic data or supported reference-audio input	Actual pitches and chord positions in the result
Sectional arrangement	Supported editor and section specification	True locations and entrances
Transformation of recorded material	Authorized input audio with editing or variation controls	Preservation and modification of intended material
Chord analysis	Explicit note names, key context and voicings in a language-model task	Analytical correctness, independently from generated audio

Text alone should not be treated as a guaranteed way to force 40 accurate chord changes or exact inner-voice motion.

F.2 Suno

Verified documented capability: Suno's September 9, 2026 support article explains stem extraction from Workspace/Library and Suno Studio. It describes Auto Split (up to 12 stems), Split from Mix and Advanced Split, with availability and costs varying by paid plan.

Musical workflow: Draft a musical specification, adapt it to the available creation or editing fields, generate, and inspect whether harmony, structure and texture correspond to the brief. Where stem extraction is available, export parts for inspection and mixing; stem separation does not guarantee recovery of every original instrument or precise note.

Do not claim without current direct testing: That bracketed chord symbols force chord compliance; that specific parameter names always work in the same interface; that every user has the same stem or editor features.

Official source: https://help.suno.com/en/articles/13925185

F.3 Udio

Verified documented capability: Udio's July 23, 2025 Help Center article describes uploads of material the user has rights to, with options including Extend, Inpaint, Remix, Style and Session. It states that audio upload is available to paid subscribers. This dated article alone does not establish that all functions are unchanged for every account in October 2026.

Musical workflow: Use descriptive text and, where available, authorized reference audio or editing controls. Independently check chord positions and phrase boundaries. Do not presume that a prose key declaration, negative term or chord sequence is parsed deterministically.

Official source: https://help.udio.com/en/articles/10754328-create-music-with-your-own-audio

F.4 Stable Audio 3.0

Verified documented capability: Stability AI's August 18, 2026 prompt guide describes text-to-music, audio-to-audio transformations, inpainting and continuation. For audio-to-audio, it documents `init_noise_level`, typically between approximately 0.3 and 0.9; lower values preserve more of the input and higher values permit broader variation.

Important parameter distinction: `init_noise_level` is a model/interface setting when exposed, not a musical note and not necessarily something that belongs inside the natural-language prompt. Direct transformation from a source audio file does not prove exact retention of the original pitches.

Official source: https://stability.ai/guides/stable-audio-3-prompt-guide

F.5 MusicGen / AudioCraft

Verified documented capability: Meta's AudioCraft documentation distinguishes text-only MusicGen models from melody-conditioned variants. The documented `generate_with_chroma` pathway accepts audio used to derive melodic chroma conditioning. This should **not** be described as a universal direct MIDI-import facility or a promise of note-perfect melodic preservation.

Musical workflow: Prepare authorized reference audio where using a melody-capable model. Check resulting melody and harmony against the actual output, and account for computation requirements where running locally.

Official source:
https://github.com/facebookresearch/audiocraft/blob/main/docs/MUSICGEN.md

F.6 AIVA and other symbolic composition systems

AIVA belongs in the tool landscape as a possible composition-oriented workflow, but **its current exact input fields and a claimed superiority of Roman-numeral syntax over chord letters remain unverified in this reference**. Do not present "AIVA prefers Roman numerals" as an established product-specific fact without a dated official source or direct demonstration.

General musical approach: Where a composition system provides explicit chord, key, score or MIDI controls, use those documented controls rather than assuming conventions from a text-to-audio platform.

F.7 Cross-platform adaptation of the approved study

The invariant composition remains: **40 bars, 4/4, quarter note = 96 BPM, C major → G major → C major**, with five eight-bar sections and the exact chord map in Chapter 22. The instrumental schedule remains piano throughout, bass entering at 9, cello at 17, brushed drums at 25, reduction at 33 and rebuild at 37.

For each tool, record its version, inputs actually accepted, reference assets, generation settings and exported outputs. Verify each of these separately: (1) length and bar boundaries; (2) written versus sounded chords; (3) tonal centers and cadential context; (4) entrances and texture; (5) audible artifacts and editability. A system can produce musically convincing audio while failing specific harmonic requirements.

F.8 Verification categories

- **Documented:** A capability clearly stated by an identified official provider source at the given date.
- **Tested:** Behavior observed in a real tool run, with version, inputs and outputs recorded.
- **Unverified:** Not substantiated by the cited source or an actual test.
- **Unavailable:** Confirmed absent in the specific account/interface tested; do not generalize without evidence.

Tool capabilities and access conditions can change by date, region, plan, and software version. Treat the cited links as dated references, and verify current features using provider documentation and your own tests.

F.9 Supplementary harmonic reference tables

Degree / Notes / Chord / Roman numeral

1 Notes: C–E–G · Chord: C major · Roman numeral: I

2 Notes: D–F–A · Chord: D minor · Roman numeral: ii

3 Notes: E–G–B · Chord: E minor · Roman numeral: iii

4 Notes: F–A–C · Chord: F major · Roman numeral: IV

5 Notes: G–B–D · Chord: G major · Roman numeral: V

6 Notes: A–C–E · Chord: A minor · Roman numeral: vi

7 Notes: B–D–F · Chord: B diminished · Roman numeral: vii°

Bar / Chord / Numeral / Basic role

1 Chord: C · Numeral: I · Basic role: Establish tonic

2 Chord: G · Numeral: V · Basic role: Move toward dominant tension

3 Chord: Am · Numeral: vi · Basic role: Move away from the expected tonic return

4 Chord: F · Numeral: IV · Basic role: Predominant possibility; phrase continues

5 Chord: C · Numeral: I · Basic role: Return to tonic harmony

6 Chord: F · Numeral: IV · Basic role: Prepare motion toward V

7 Chord: G · Numeral: V · Basic role: Dominant preparation

8 Chord: C · Numeral: I · Basic role: Tonic arrival; potential authentic cadence if the melody and phrase close

CHORDS AND HARMONIC ANALYSIS



Bar: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 · Chord: C | G | Am | F | C | F | G | C · Numeral: I | V | vi | IV | I | IV | V | I

CHORDS AND HARMONIC ANALYSIS



Bar: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 · Chord: Em | C | Am | B7 | Em | Am | B7 | Em · Analysis: i | VI | iv | V7 | i | iv | V7 | i

Bar / Original / Color version / Roman-numeral family

1 Original: C · Color version: Cmaj7 · Roman-numeral family: Imaj7

2 Original: G · Color version: G7 · Roman-numeral family: V7

3 Original: Am · Color version: Am7 · Roman-numeral family: vi7

4 Original: F · Color version: Fmaj7 · Roman-numeral family: IVmaj7

5 Original: C · Color version: Cmaj9 · Roman-numeral family: Imaj9

6 Original: F · Color version: Fmaj7 · Roman-numeral family: IVmaj7

7 Original: G · Color version: G9 · Roman-numeral family: V9

8 Original: C · Color version: Cmaj9 · Roman-numeral family: Imaj9

Bar 6 before / Bar 6 after / Changed pitch / Analysis

F–A–C Bar 6 after: F–A♭–C · Changed pitch: A becomes A♭ · Analysis: IV → borrowed iv

Main key / Applied dominant / Local goal / Analysis

C major Applied dominant: A7 · Local goal: Dm · Analysis: V7/ii → ii

C major Applied dominant: D7 · Local goal: G · Analysis: V7/V → V

C major Applied dominant: E7 · Local goal: Am · Analysis: V7/vi → vi

C major Applied dominant: C7 · Local goal: F · Analysis: V7/IV → IV

G major Applied dominant: E7 · Local goal: Am · Analysis: V7/ii → ii

E♭ major Applied dominant: C7 · Local goal: Fm · Analysis: V7/ii → ii

Experiment / Bars 1–8 / Controlled concept

A – reference Bars 1–8: C / G / Am / F / C / F / G / C · Controlled concept: Triadic framework

B – chord extensions Bars 1–8: Cmaj7 / G7 / Am7 / Fmaj7 / Cmaj9 / Fmaj7 / G9 / Cmaj9 · Controlled concept: Chord-color pass; multiple changes, whole-version comparison

C – borrowed iv Bars 1–8: C / G / Am / F / C / Fm / G / C · Controlled concept: Only bar 6 altered relative to A

D – applied dominant, control Bars 1–8: C / G / Am7 / Dm / C / F / G / C · Controlled concept: Matched control for E

E – applied dominant, test Bars 1–8: C / G / A7 / Dm / C / F / G / C · Controlled concept: Only bar 3 differs from D; C becomes C♯ within the A seventh chord

FORM AND HARMONIC PLAN

A BARS 1–8 C major

C · G · Am · F · C · F · G · C

Preserve Theme A exactly

A′ BARS 9–16 C major

C · G · Am · F · C · F · G · C

Repeat harmonic identity; vary instrumentation

B – pivot BARS 17–24 C → G

C · F · Am · D7 · G · C · D7 · G

Am as vi/ii pivot; D7→G, then reinforce G

C – new center BARS 25–32 G major

G · D · Em · C · Am · D7 · G · G

Confirm G major as governing tonal center

A″ – return BARS 33–40 G → C

C · G · Am · F · C · F · G7 · C

Reestablish C, using G7→C at the end

A Final Note

The Composer’s Judgment

Music theory provides a language for understanding musical relationships. Harmony describes movement, tension and resolution. Composition organizes these elements into meaningful musical form.

Computational tools introduce new ways to express, explore and realize musical intentions. Yet a generated result remains something to be examined, not simply accepted. Its musical value cannot be established by the precision of its prompt alone.

The knowledge developed throughout this book is therefore not limited to a particular generation system. It remains applicable wherever musical ideas must be conceived, described, performed, evaluated or revised.

As the tools evolve, the essential responsibilities of the composer remain: to listen critically, understand musical relationships, make deliberate choices and recognize when a musical intention has—or has not—been realized.

The prompt expresses the intention. The music must answer for itself.

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The official publication may be accessed through:

https://reasoning-and-logic.vercel.app/

INTERACTIVE COMPANION

Explore the book chapter by chapter through interactive music exercises and demonstrations in The Composer's Prompt Lab.

https://thecomposersprompt-lab.vercel.app/