BRG — User Guide

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Audience: Musicians, students, teachers, composers, and rhythm enthusiasts

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1. Welcome to BRG

1.1 A rhythm laboratory

BRG — Beats, Rate, Grouping is an interactive tool for rhythm practice, musical exploration, and composition. It begins with something familiar—the repeating pulse of a metronome—and opens it up into several rhythmic layers that you can hear separately or together.

> A conventional metronome marks time. BRG lets you work with the relationships *within* that time: how events are distributed across beats, how those events are grouped, and how the resulting figures repeat or shift against one another. A simple pulse can become a subdivision exercise, a polyrhythmic study, an asymmetrical grouping, or the basis for a larger musical form.

You do not need to understand every parameter before making music with BRG. A useful place to start is simply to listen to a steady beat, add another rhythmic layer, and notice what changes. By adjusting one value at a time, you can discover relationships that may be difficult to imagine from notation or counting alone.

BRG makes these structures **audible, visible, and repeatable**. Its concentric rings and playback indicators can help you follow the pattern, but the sound is the primary reference. The purpose is not to depend on the display or to count every event indefinitely: it is to develop the ability to *feel* rhythmic relationships and carry them into playing, singing, movement, improvisation, and composition.

1.2 Exploring rhythmic relationships

BRG lets you hear a rhythmic idea immediately, change one part of it, and compare the result. You can focus on the beat, the subdivisions, the grouping accents, or the relationship between all three.

You can use BRG for focused practice, to experiment with unfamiliar rhythmic combinations, or as a starting point for composition. The visual display helps make the structure clear, but it is the sound of the resulting rhythm that matters.

1.3 What you can do with BRG

BRG supports both immediate experimentation and more structured work:

- In **Free Mode**, build and explore a rhythmic configuration directly.

- In **Song Mode**, arrange a sequence of rhythmic parts into a continuous musical structure.
- In **Setlist Mode**, collect songs and navigate them as a larger sequence.
- In **Practice Mode**, use configured changes to rhythmic parameters as part of a repeatable exercise.

These are **workflow modes**: they determine what kind of activity you are carrying out. Separately, **Basic** and **Advanced** control which rhythmic parameters are available. A workflow mode is not the same thing as Basic or Advanced.

BRG also includes sound selection, a mixer, live MIDI output, saved files, MIDI-file export, and Ogg Opus audio export. You can use it on its own as a listening and practice tool or integrate its patterns into a broader musical setup. Later chapters explain these features in detail; you do not need them for your first exercise.

1.4 Who this guide is for

You can use this guide without prior knowledge of music software. Basic familiarity with beats and pulse helps, but more advanced topics are introduced gradually.

New users can begin with Chapters 2 and 3 and postpone the more technical controls. **Students and teachers** can use the examples as starting points and develop their own exercises. **Performers and composers** can use the reference chapters to construct complex groupings, practice changing relationships, arrange parts, and route or export patterns.

This guide generally introduces the **musical idea first**, then explains the relevant BRG control. Screenshots show where to find controls; they are not a substitute for listening.

1.5 Origins and acknowledgements

The BRG concept originates from **Kostas Anastasiadis** and his work *The Harmony of Rhythm*. The application was developed by **Thanos Karakantas / Theta Kappa Music** to bring this approach to rhythm into an interactive audio-visual environment.

> BRG is intended as a way to *engage* with rhythmic ideas: to explore their relationships, hear their consequences, and develop musical fluency through practice.

2. Understanding Beats, Rate, and Grouping

BRG stands for **Beats, Rate, Grouping**. The singular names *Rate* and *Grouping* are intentional: together with Beats, they describe one specific rhythmic configuration. Many different BRG configurations are possible, but each one is defined by its B, R, and G values.

These three parameters determine the beat cycle, its subdivisions, and the way those subdivisions are grouped.

Symbol	Name	In simple terms
B	**Beats**	How many beats are in the cycle.
R	**Rate**	How many evenly spaced notes occur in each beat.
G	**Grouping**	How many rate notes belong to a group before the next grouping accent.

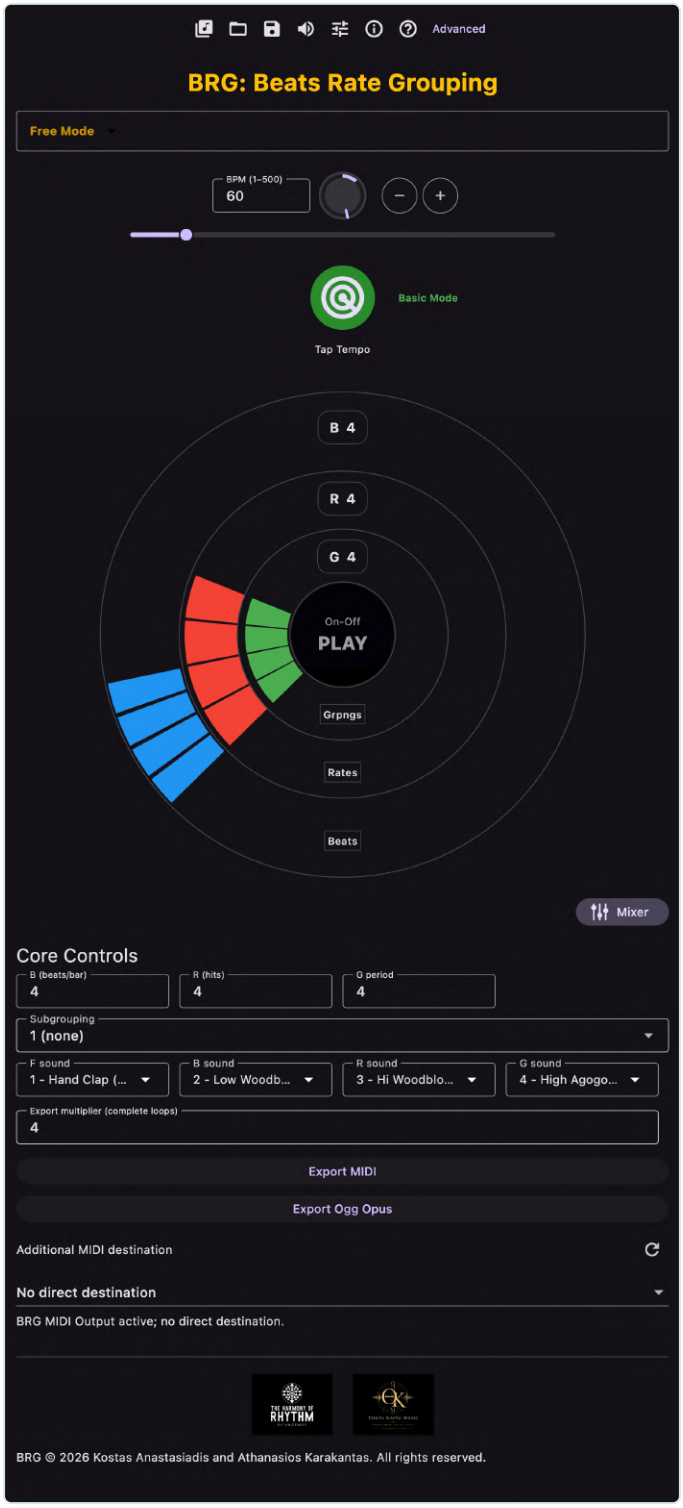


Figure 2.1. Free Mode in Basic view: the main rhythmic controls and rings.

2.1 B — Beats

B sets the number of beats in the cycle. Think of it as the time signature expressed in quarter notes.

For example:

- **B = 4:** a four-beat cycle, comparable to 4/4.
- **B = 5:** a five-beat cycle, comparable to 5/4.
- **B = 7:** a seven-beat cycle, comparable to 7/4.

When the cycle ends, it begins again from beat 1. B gives the other rhythmic layers a common reference.

2.2 R — Rate

R sets the number of equally spaced notes within each beat. In familiar musical terms, these are *subdivisions* or *n-tuplets*.

For example:

- **R = 2:** two notes per beat (eighth-note subdivision).
- **R = 3:** three notes per beat (triplets).
- **R = 4:** four notes per beat (sixteenth-note subdivision).
- **R = 5:** five equally spaced notes per beat (quintuplets).

R does not change the length of a beat. It changes how many notes fit inside that beat.

With **B = 4** and **R = 3**, a four-beat cycle contains three evenly spaced rate notes in every beat. This is the same underlying beat cycle, now divided into triplets.

2.3 G — Grouping

G sets how many rate notes are counted before a grouping accent occurs. It groups the notes produced by R into a separate rhythmic pattern.

For example, with **R = 4** and **G = 3**, each beat contains four rate notes, but the grouping accents recur every three rate notes. The grouping therefore moves across the beat boundaries instead of simply repeating at the start of every beat.

This is the key idea: **R determines the subdivision, while G determines how those subdivision notes are clustered.** G can be changed independently of R, creating another rhythmic layer and, often, a polyrhythmic relationship with B.

> A grouping accent may be heard through an accented or different sound, according to the selected sound and accent settings. The important distinction is that the *beat*, the *rate*, and the *grouping* are separate things, even when they coincide.

2.4 Putting B, R, and G together

Consider **B = 4, R = 4, G = 3**:

- The cycle contains **four beats**.
- Each beat contains **four rate notes**.
- The grouping accents recur **every three rate notes**.

The beats stay steady. The subdivision stays even. It is the **grouping accents** that create an additional rhythmic pattern against them.

Another example is **B = 4, R = 3, G = 4**. Here, **B and G are equal, but R is different**:

- Four beats make up the cycle (**B = 4**).
- Each beat contains three evenly spaced notes (**R = 3**), giving twelve rate notes in total.
- The grouping accent returns every four rate notes (**G = 4**). Across those twelve notes, there are **three groups**, creating a **3-over-4 polyrhythm** against the four beats.

You can represent the twelve evenly spaced notes like this, with the capital syllables marking grouping accents:

TA-ki-ti | ta-KI-ti | ta-ki-TI | ta-ki-ti

> The vertical bars separate the four beats; the accents move through the triplets because G groups the *rate notes*, not the beats. After the fourth beat, the pattern repeats from the beginning.

Changing any one of B, R, or G changes a different aspect of the rhythm. That is the foundation of BRG.

The concentric rings show the layers visually, while the sounds let you hear how they fit together. You can listen to each layer separately or in combination, using the mixer if needed.

2.5 Additional controls in Advanced

Basic provides the essential B/R/G relationship. **Advanced** adds further ways to work with that relationship:

- **F — Form:** Determines when the form begins again, using a number of complete BRG cycles or a chosen number of beats. F is related to B, not a separate beat layer.
- **Rdiv:** Spreads the rate over a different beat span rather than using the usual subdivision within each beat.
- **G displacement:** Moves the position of the grouping relative to the rate notes.
- **G on G:** Adds a further *grouping layer*, producing a secondary grouping accent every specified number of G groups. It also has its own displacement control.
- **Subgrouping:** Divides a group internally into smaller parts, including custom arrangements.

Understanding F — Form

By default, the BRG cycle is one bar of **B** beats, and it repeats with the same structure.

When **F is expressed in forms (complete cycles)**, it counts those cycles. For example, with **F = 2 forms**, the B/R/G pattern repeats as usual, but the F accent occurs every second BRG cycle.

When **F is expressed in beats**, the form may end somewhere other than a BRG-cycle boundary. For instance, with **B = 4** and **F = 6 beats**, the form restarts after six beats. That means the current BRG cycle is cut off at the form boundary and playback begins again from its first beat. The underlying B/R/G structure itself is unchanged.

The distinction is simple: **F determines the form boundary; B still defines the beat cycle used within that form.**

Later chapters cover these additional controls in detail.

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3. Getting Started with BRG

This chapter introduces the main controls and the basic steps for creating and saving a rhythmic pattern. The descriptions apply to **BRG 1.8.8**; some controls are arranged differently on desktop and mobile screens.

3.1 Two types of mode

BRG has two separate mode selections:

Workflow mode determines what you want to do:

Mode	Purpose
Free	Create and adjust a rhythmic pattern directly.
Song	Arrange several rhythmic parts into a sequence.
Setlist	Organize and navigate a collection of songs.
Practice	Create routines that change selected parameters automatically.

Basic / Advanced determines which rhythmic parameters appear. Basic focuses on B, R, and G; Advanced adds the structural controls introduced in Chapter 2.

You can choose the workflow independently of Basic or Advanced.

3.2 The main screen

Start in **Free Mode**, with **Basic** selected. The following controls are the most useful ones to recognize first:

Control	Function
B, R, G	Set the beat cycle, rate, and grouping.
Tempo / Tap Tempo	Set playback speed numerically or by tapping.
Play / Stop	Start or stop playback.
Sound selection	Choose the sound of each rhythmic layer.
Mixer	Adjust levels and use Mute or Solo for individual layers.
Presets	Load, save, and manage rhythmic settings.
Options / Help	Adjust application behavior and read control explanations.

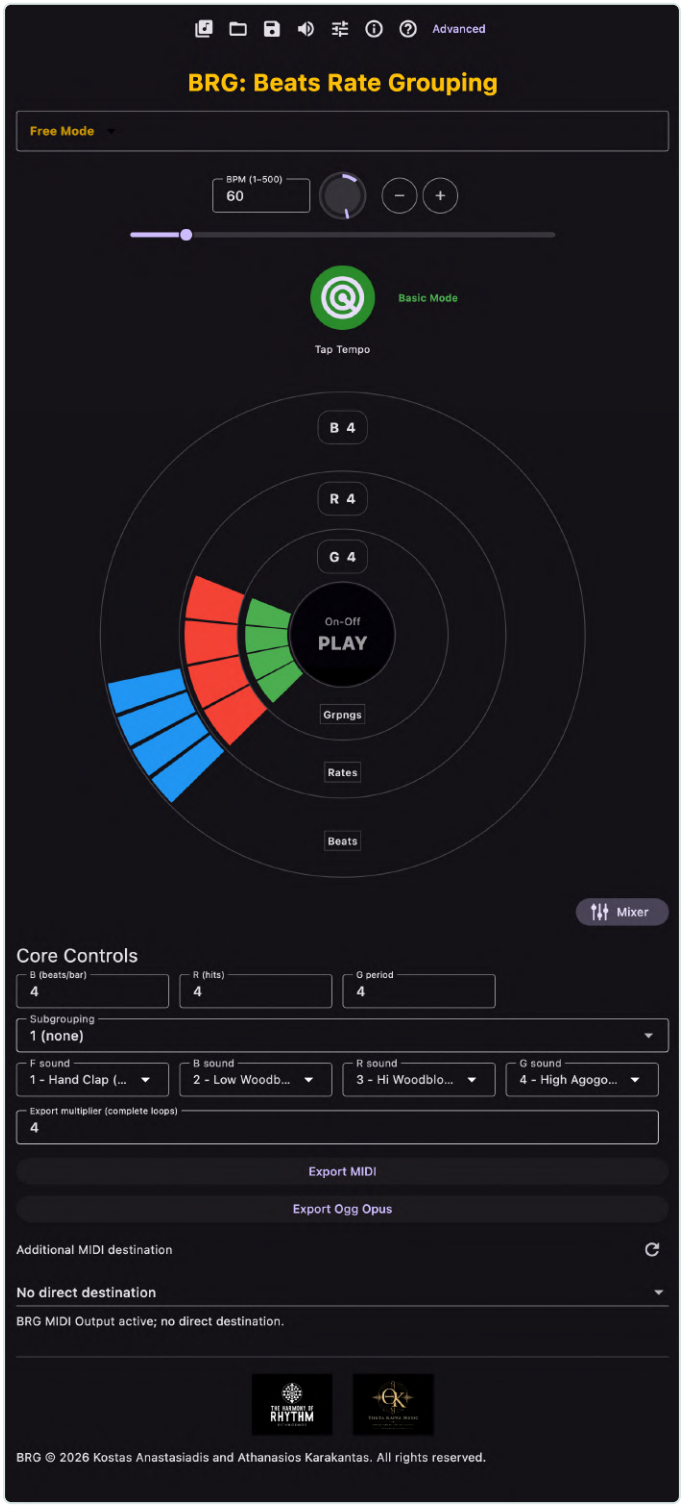


Figure 3.1. Main screen in Free/Basic view.

3.3 Create a pattern

1. Select **Free Mode** and **Basic**.
2. Set **B**, **R**, and **G** to the values you want. For example, **B = 4, R = 4, G = 3**.
3. Set a comfortable tempo.
4. Press **Play** to hear the result.

5. Change a value to hear its effect, or press **Stop** when finished.

You can adjust parameters using their available controls and numerical entry. Some changes may be restricted during playback; the relevant sections of this guide explain those restrictions.

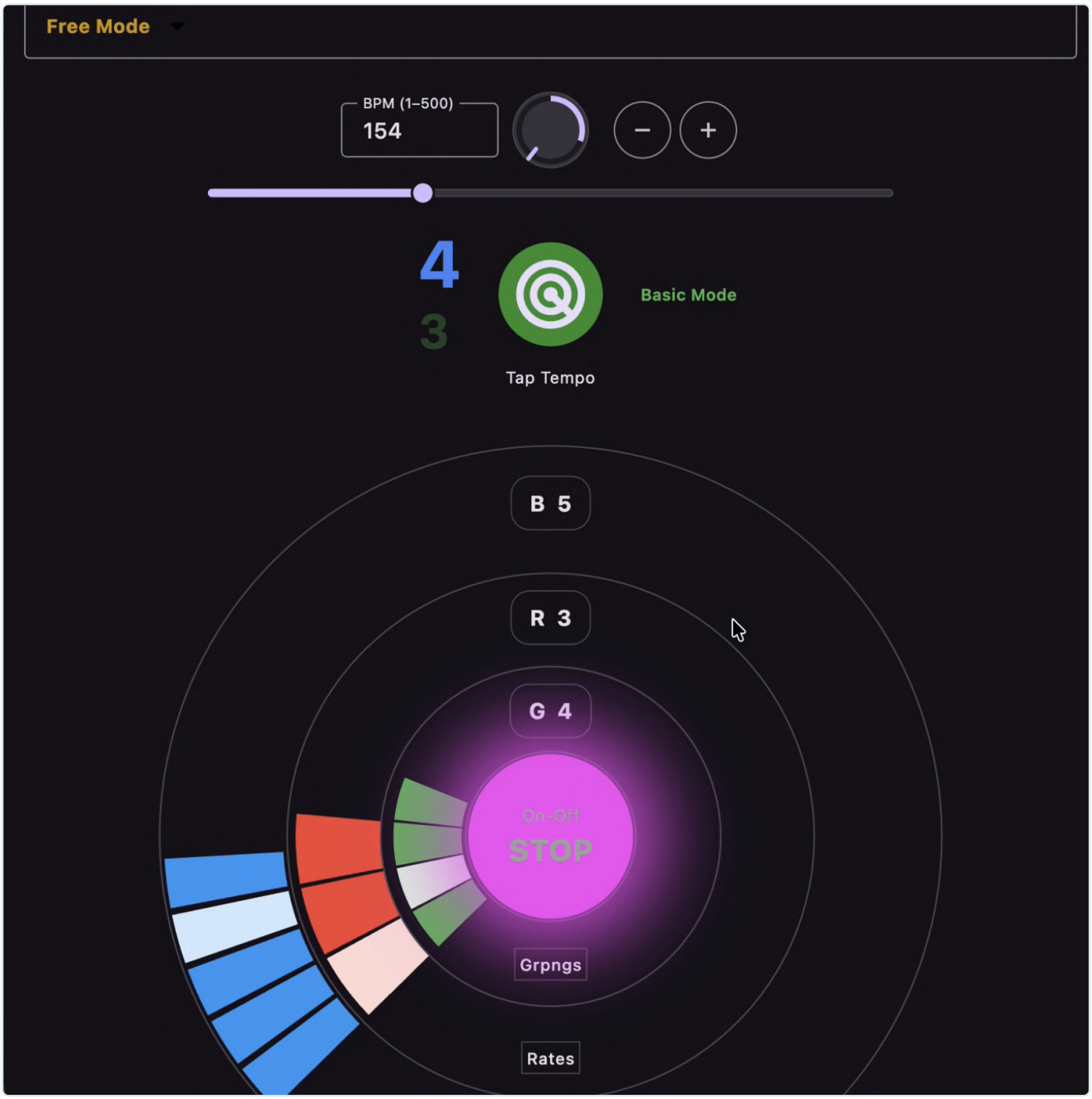


Figure 3.2. Free Mode during playback, with illuminated rhythm rings.

3.4 Sounds and mixer

Each rhythmic layer can use its own sound. Different sounds make the layers easier to distinguish; using the same sound for several layers can create a more unified result.

Open the **Mixer** to adjust the balance. It includes a Master control and separate controls for **F, B, R, G, and G on G**, together with Mute and Solo functions. Some Advanced layers are not active in Basic.

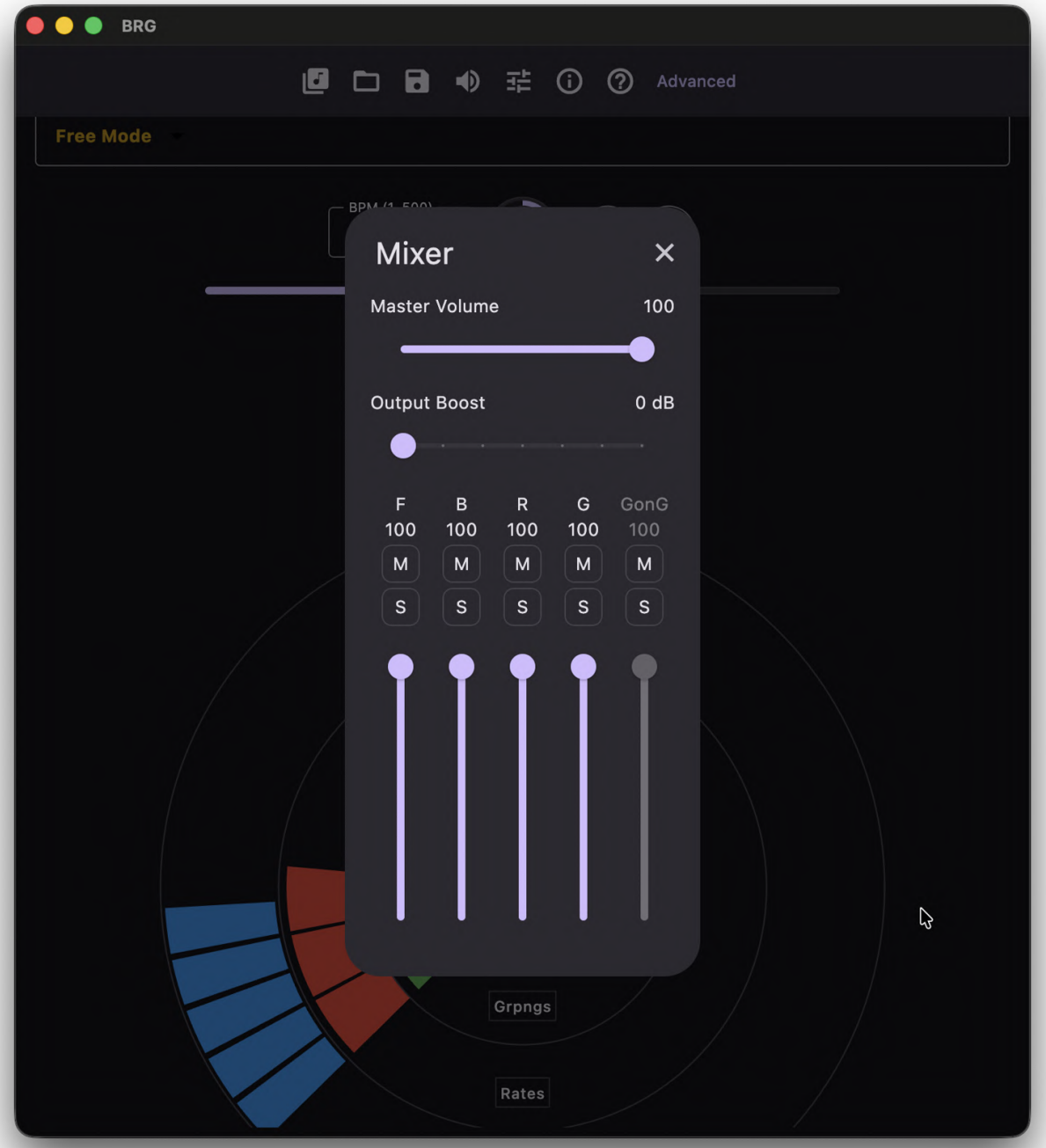


Figure 3.3. The dedicated Mixer window with layer faders and mix controls.

The mixer changes the balance, not the values of B, R, or G. It is useful both for ordinary playback and for focusing on particular rhythmic layers.

3.5 Visual feedback

BRG displays B, R, and G as concentric segmented rings. During playback, the segments and optional numeric indicators show the current rhythmic positions. The display can be configured in the application options.

The visual feedback is there to support the sound, not replace it.

3.6 Save and reload a preset

When you want to keep a pattern, use the **Free Mode preset controls** to save it. Give the preset a recognizable name, then load it later from the appropriate preset manager or file selection interface.

BRG uses `.brg` for individual presets and `.brgpack` for packs of presets. The saving and sharing options vary between desktop and mobile platforms. Chapter 14 covers these in detail.

3.7 Where to go next

Chapter 4 describes the full interface. Chapter 5 covers Free Mode in detail; the later chapters explain the Advanced controls, Song Mode, Setlist Mode, Practice Mode, mixer, MIDI, and exporting.

You can also explore BRG directly and return to the guide whenever a particular control or mode needs explanation.

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4. Navigating BRG

4.1 Two different mode selections

BRG has **four workflow modes**: **Free**, **Song**, **Setlist**, and **Practice**. The mode selector lets you choose between them. Each mode serves a different purpose:

Mode	What it is for
Free	Create and explore one BRG configuration directly.
Song	Arrange several rhythmic parts into a song.
Setlist	Organize several songs in a larger sequence.
Practice	Set up automatic changes to selected parameters.

Separately, the **Basic / Advanced** selection determines which rhythmic parameters are available. Basic focuses on B, R, and G. Advanced offers additional control over form, rate spreading, and grouping layers. You can think of the workflow mode as *what you are doing* and Basic/Advanced as *which controls you need*.

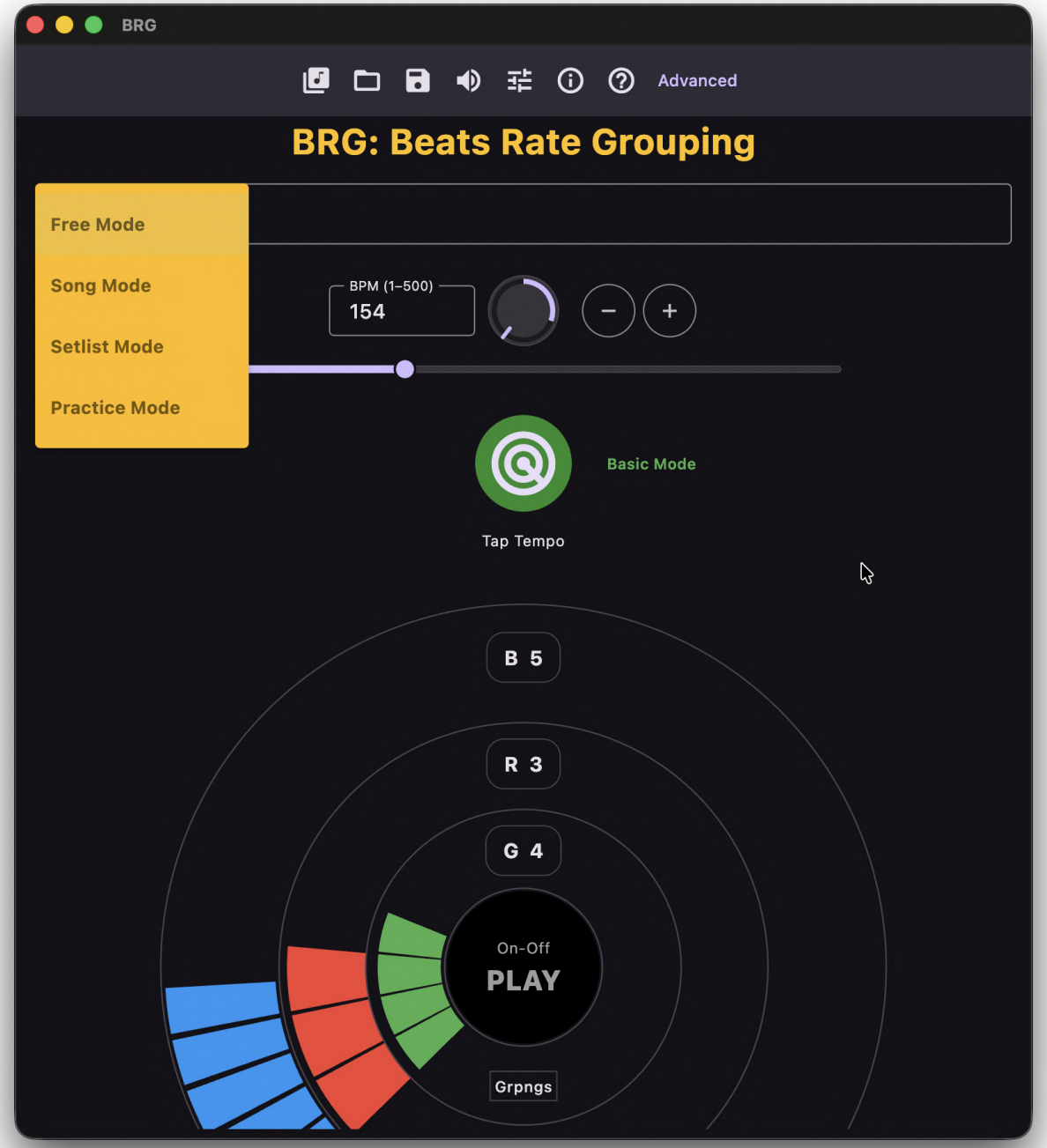


Figure 4.1. Workflow selector with the four BRG modes.

4.2 Finding your way around the main screen

The main BRG screen brings the essential controls together:

- **B, R, and G** set the rhythm. They are displayed through concentric segmented rings and corresponding numerical controls.
- **Playback** starts or stops the selected pattern or mode-specific sequence.

- **Tempo** controls playback speed. In Free Mode you can enter a value, adjust it using the on-screen controls, or use Tap Tempo.
- **Sounds** determine which sound is used for each rhythmic layer.
- **Mixer** opens a separate panel for balancing the layers, including Master, Mute, and Solo.
- **Presets and mode-specific file commands** let you save and retrieve your work.
- **Options** controls interface and playback preferences. **Context Help** is toggled separately from the app bar / More menu.

The central rings show the selected B/R/G structure. During playback, illuminated segments and optional number displays help you see the current position. The sound remains the timing reference.

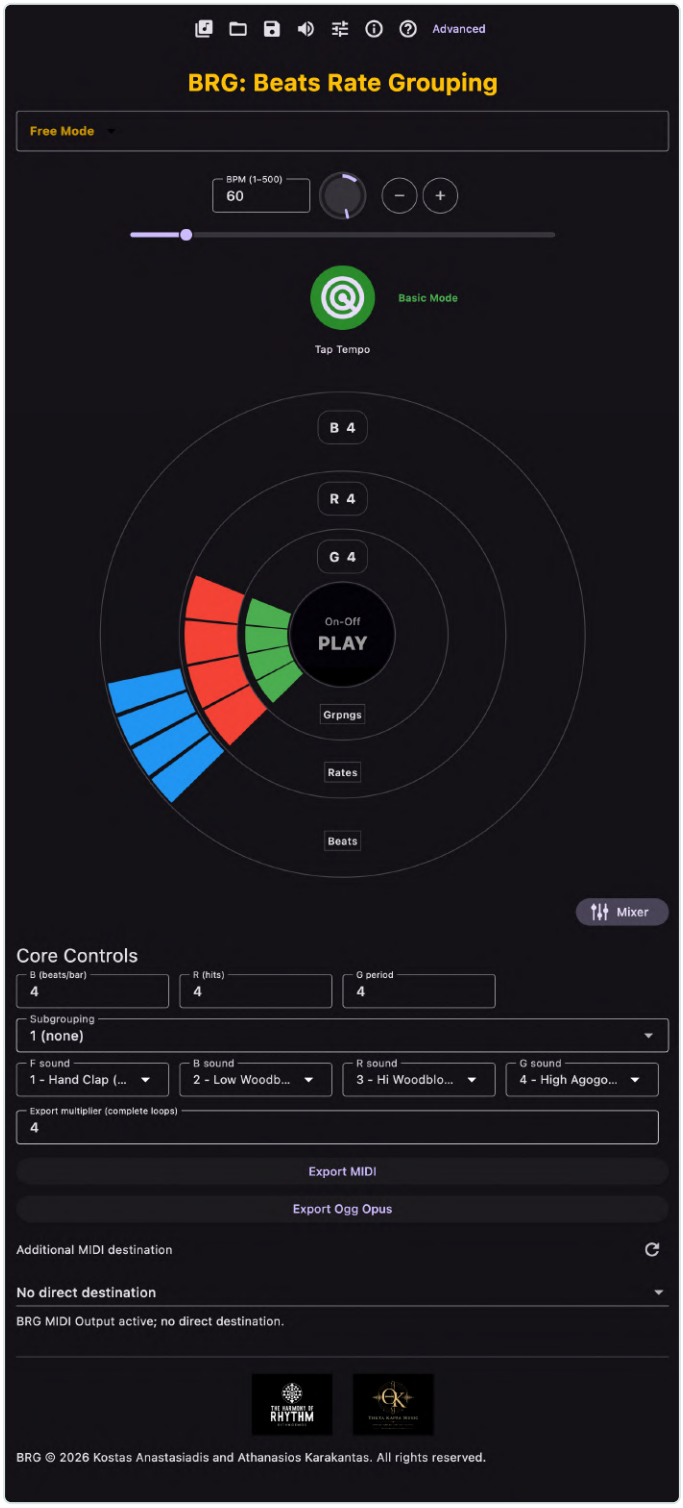


Figure 4.2. Full main screen, showing its overall control layout.

4.3 Changing a value

BRG offers several ways to change values, depending on the control: numerical entry, knobs or touch controls, and direct interaction with ring segments. When an exact value matters, numerical entry is the simplest method.

For a small change, use the relevant on-screen control. Ring interaction includes protection against unintended changes during scrolling on touchscreens. Where a parameter has a defined minimum or maximum, BRG restricts the accepted value to that range.

Some controls can be changed while a pattern is running; others are disabled when editing would interrupt or invalidate the active playback sequence. **If a control is dimmed during playback, stop the transport and try again.** Song and Setlist have additional playback restrictions, explained in their own chapters.

4.4 Options and context help

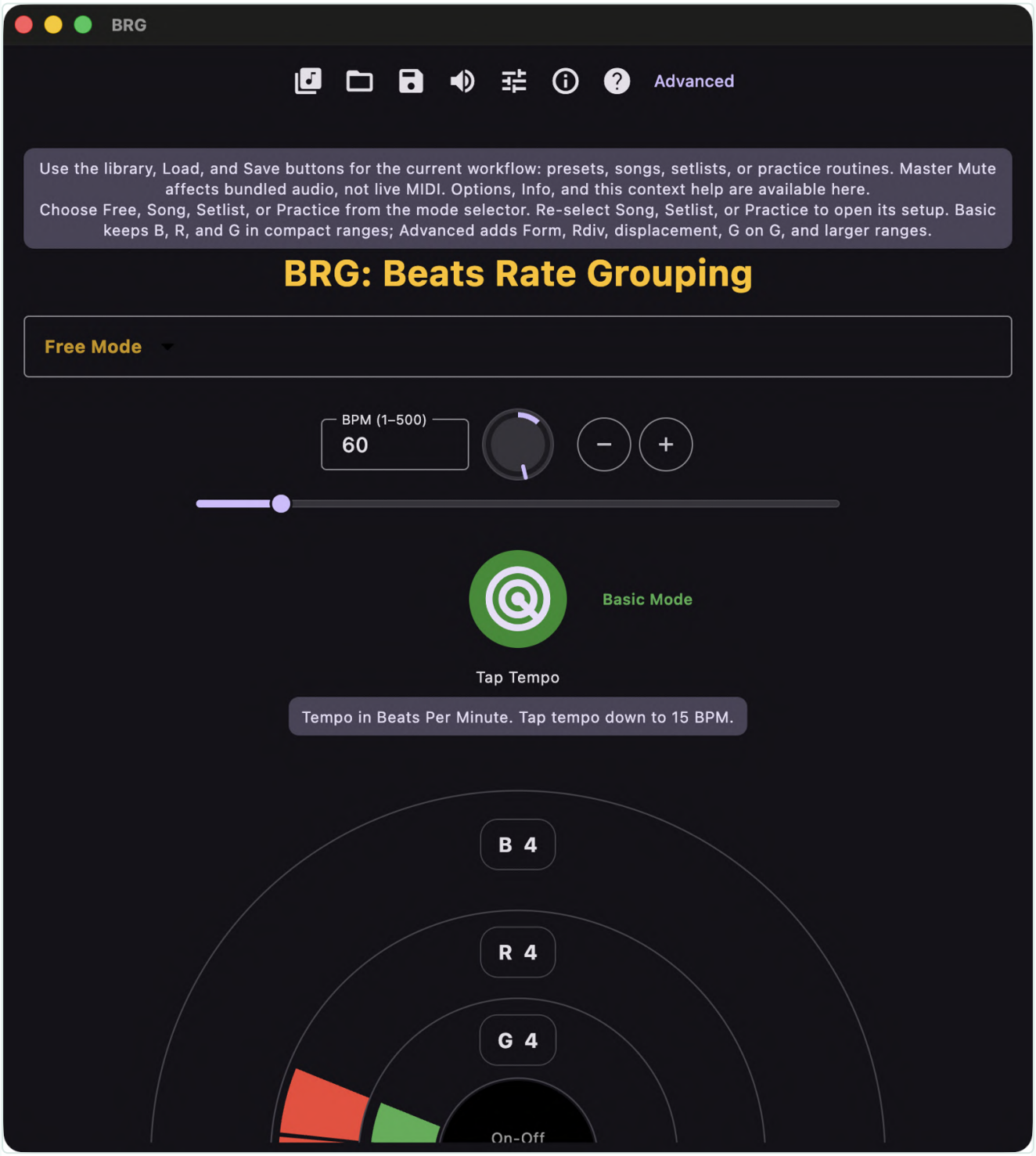


Figure 4.4. Context Help displayed on the main screen.

Open **Options** to configure BRG's general behavior and display. Options include **Lights**, **Lights only on B**, **Group Accent**, **Split 3 as 2+1**, **Extended B/G range**, and the choice to express **F in bars or beats**. Other available settings are discussed in Chapter 15.

Context Help is toggled separately from the app bar / More menu, not inside the Options dialog. When enabled, short explanations appear near relevant controls and are especially useful while exploring Advanced parameters or mode-specific restrictions.

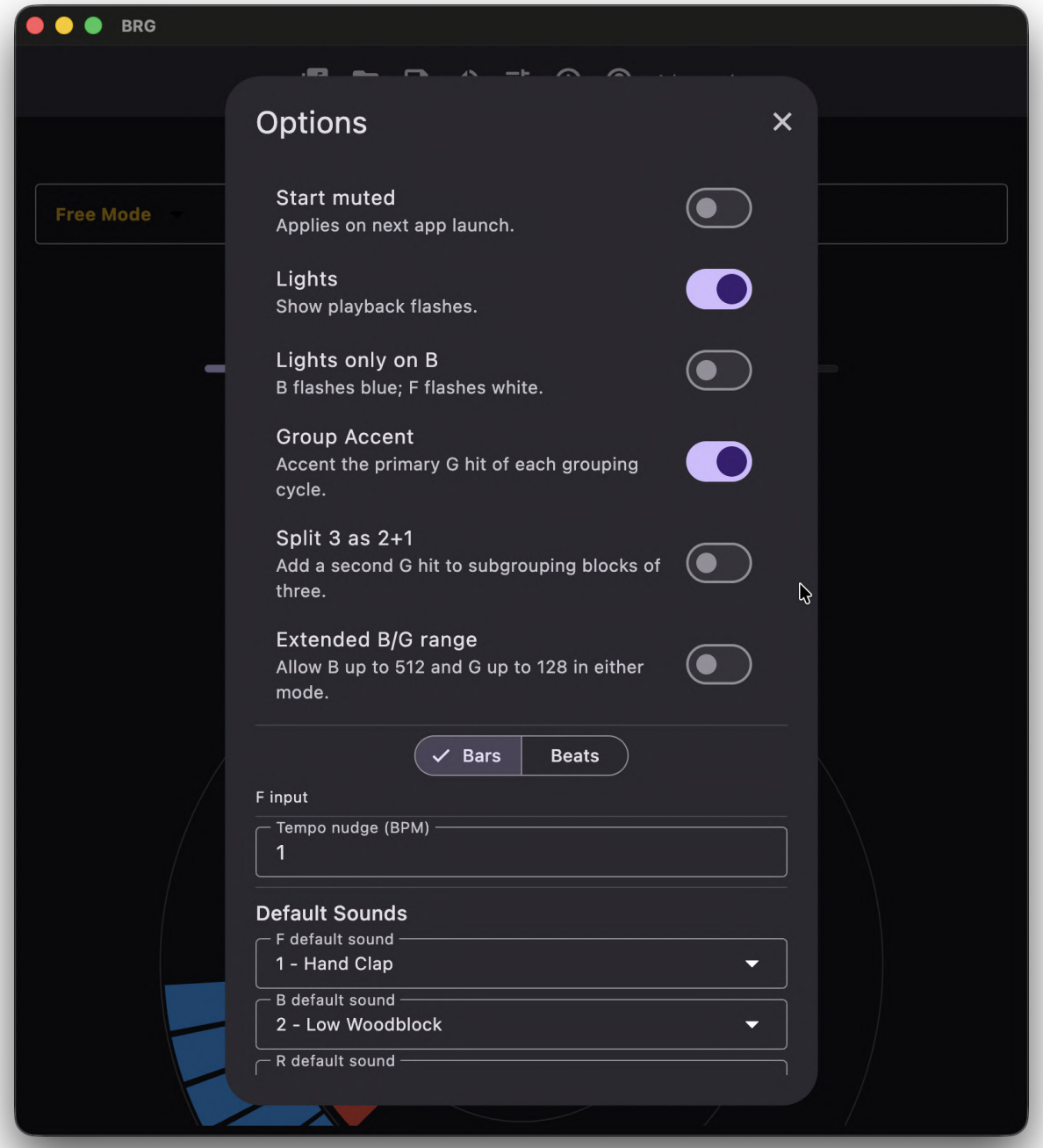


Figure 4.3a. Options dialog and app-bar menus (Context Help is toggled in the app bar / More menu) — view 1.

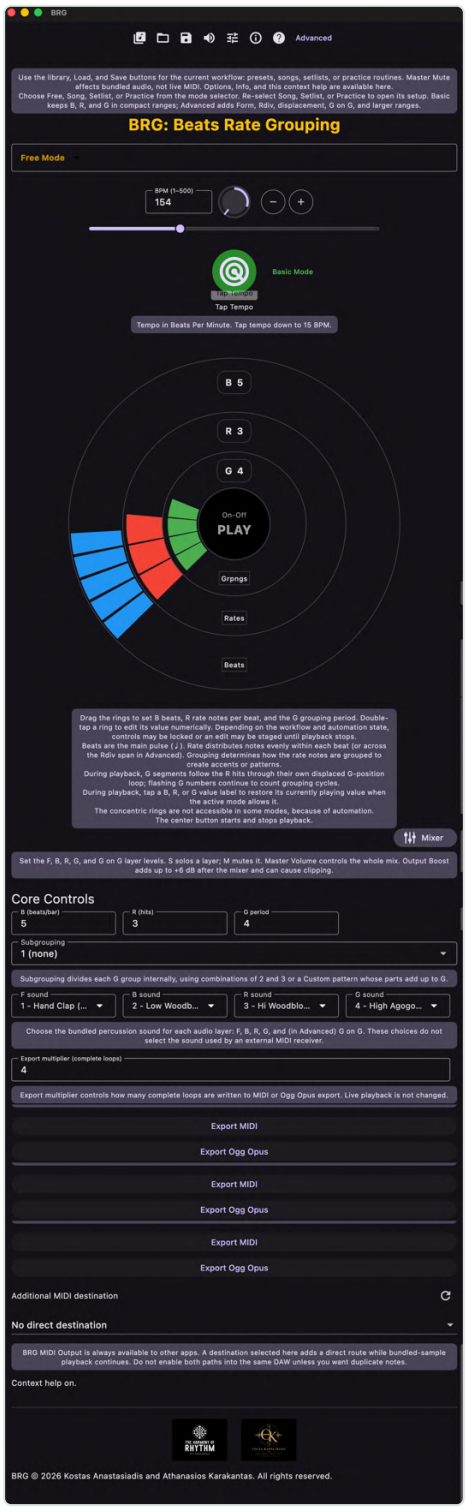


Figure 4.3b. Options dialog and app-bar menus (Context Help is toggled in the app bar / More menu) — view 2.

4.5 Desktop and mobile

The same musical concepts and four workflow modes are available across supported platforms, but layout, file dialogs, keyboard access, and MIDI destinations can differ. On a smaller screen, some controls are arranged more compactly; on desktop, keyboard shortcuts provide another way to operate the app.

The rest of this guide describes the common workflow unless a platform difference affects the result. Platform-specific MIDI routing and file handling are covered in Chapters 12–15.

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5. Free Mode

5.1 What Free Mode does

Free Mode is the most direct way to work with BRG. It plays a single rhythmic configuration defined by B, R, and G, along with any available Advanced settings. You can change the configuration, choose sounds, adjust the mix, and save the result as a preset.

Free Mode is also a useful starting point for creating material that can later be used in Song or Practice Mode.

5.2 Set B, R, and G

Choose **Free Mode** and begin in **Basic** if you only need the three primary parameters:

1. Set **B** to the number of beats in your cycle.
2. Set **R** to the number of evenly distributed notes in each beat.
3. Set **G** to the number of rate notes between grouping accents.
4. Start playback to hear the combined result.

For example, **B = 4, R = 3, G = 4** gives four beats, triplets in each beat, and a grouping accent every fourth rate note. This produces the three-against-four relationship described in Chapter 2.

When you change B, R, or G, you are changing the structure of the pattern—not simply its sound. Use the mixer if you want to hear one layer more clearly without altering the underlying rhythm.

5.3 Set the tempo

BRG accepts tempo values from **1.0000 to 500.0000 BPM**, with up to four decimal places. You can enter an exact value, change it using the tempo controls, or use **Tap Tempo** to estimate a tempo from repeated taps.

Tempo changes the speed of playback, not the B/R/G relationship. The number of beats, subdivisions, and grouping positions remains defined by the same parameters.

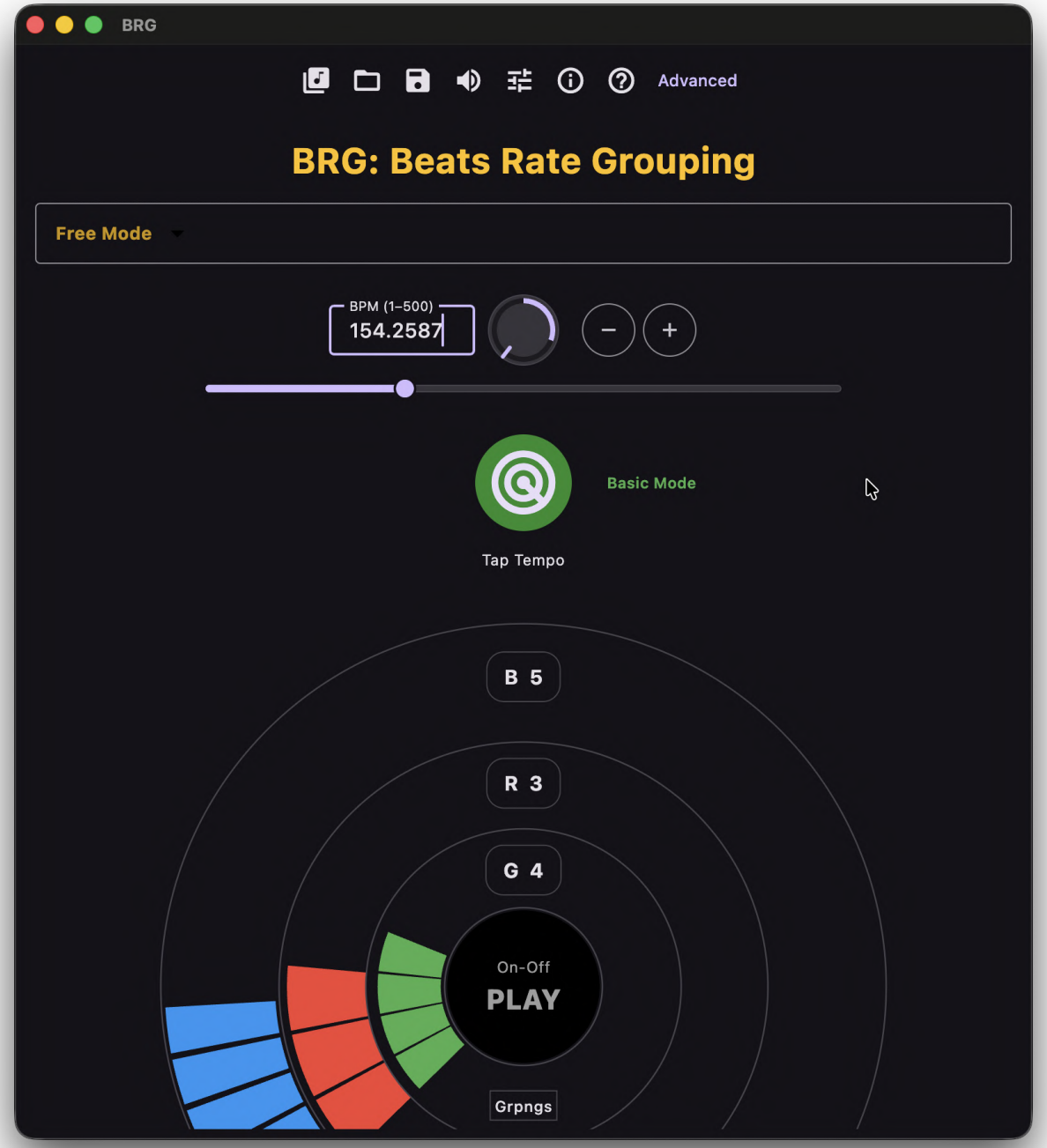


Figure 5.1. Tempo controls on the main screen.

5.4 Playback and visual indicators

Press **Play** to hear the current configuration and **Stop** to end playback. While BRG plays, its rings and optional flashing numbers show the changing beat and grouping positions.

The **Lights** option turns playback flashes on or off. **Lights only on B** reduces the visual information: B flashes blue and F flashes white. These choices affect what is shown, not the generated rhythm.

Editing B, R, and G during playback

In Free Mode, changing **B**, **R**, or **G** while playback is running changes the value shown in the interface, but **does not alter the rhythm currently playing**. The running configuration remains unchanged until playback is stopped and started again.

This also means an accidental adjustment does not interrupt the current rhythm. To discard a change while playback is running, **tap the B, R, or G value label inside its ring**. The displayed value returns to the corresponding currently playing value.

If you keep the edited value instead, stop playback and press **Play** again to hear the new configuration.

5.5 Choosing sounds and using the mixer

BRG allows different rhythmic layers to have different sounds. You can emphasize the separation of the beat, rate, and grouping, or assign similar sounds for a more unified pattern.

The **Mixer** provides individual levels for F, B, R, G, and G on G, plus a Master control and per-layer Mute and Solo. G on G is an Advanced layer and is not effective in Basic, even where its mixer controls remain visible.

A sound choice changes the character of the pattern; a mixer adjustment changes its balance. Neither changes the B/R/G values themselves. Chapter 11 explains the mixer in full.

5.6 Save your pattern

A saved Free Mode pattern is a **preset** (`.brg`). Use the preset saving command or preset manager to save it under a recognizable name. You can return to the configuration later, or collect presets into a shareable **`.brgpack`**.

The exact save/load dialogs differ between mobile and desktop systems. Chapter 14 covers preset libraries, sharing, and file handling.

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6. Basic and Advanced Controls

6.1 Basic

Basic keeps the interface focused on B, R, and G. It is not a different rhythm engine or a separate workflow mode: it simply presents the primary parameters without the extra structural controls of Advanced.

With the standard range settings, Basic allows:

Parameter	Range
B	1–32
R	1–16
G	1–16

These are parameter limits, not recommendations for how you should use the values.

6.2 Advanced

Advanced exposes more options for shaping the rhythm. With the standard range settings its B/R/G limits are:

Parameter	Range
B	1–128
R	1–64
G	1–64

Advanced adds **F (Form)**, **Rdiv**, **G displacement**, **G on G**, and **G on G displacement**. The purpose of each parameter is described below.

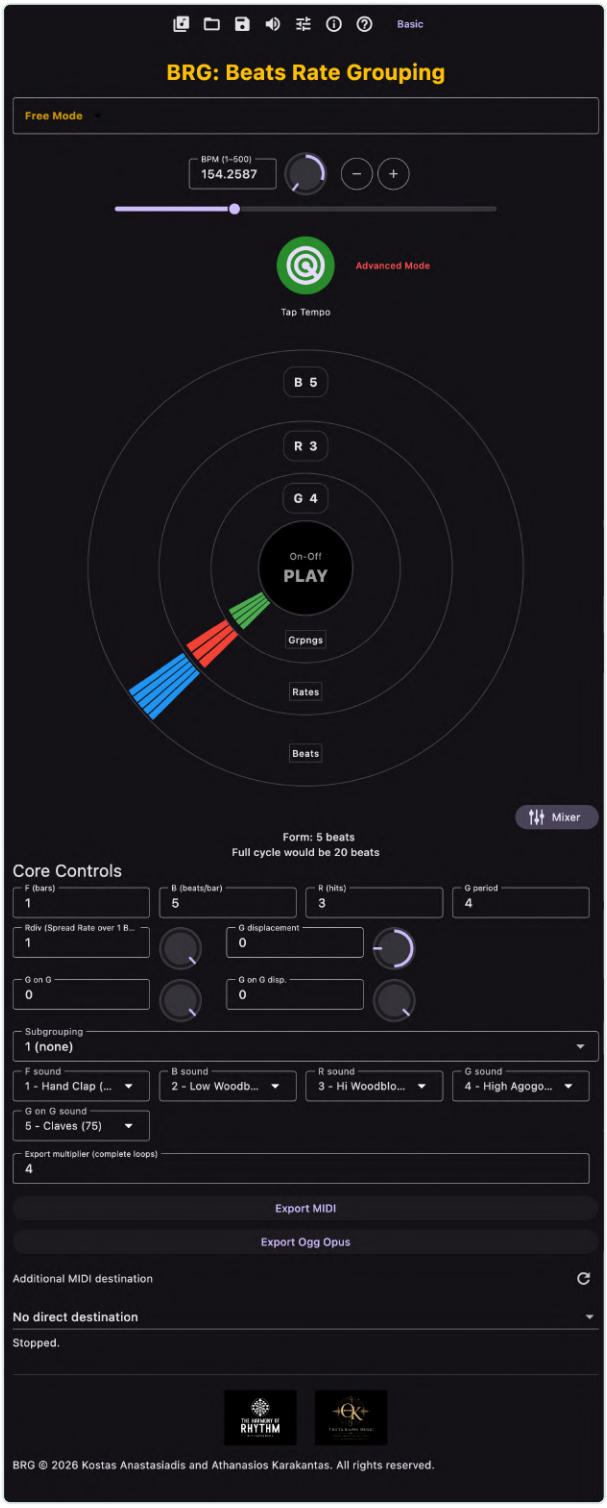


Figure 6.1. Advanced controls and additional rhythmic parameters.

6.3 F — Form

F sets the length of the form. You can enter that length as a number of complete **BRG cycles (bars)** or as a number of **beats**. Choose the unit in Options.

If the form is set to **2 bars**, the B/R/G cycle repeats normally, with the form accent appearing at the beginning of every second cycle. For example, with **B = 4**, two bars correspond to eight beats.

If the form is set to **6 beats** while **B = 4**, playback reaches the form boundary after six beats. The current four-beat BRG cycle is therefore cut at that point, and the form begins again at the start of the same B/R/G structure. **F changes the overall return point; it does not redefine B.**

This distinction matters especially when F in beats is not a multiple of B.

6.4 Rdiv — Spreading the rate

Ordinarily, **R** describes evenly distributed notes within each beat. **Rdiv** lets that rate span a different number of beats. In the interface, it is described as **“Spread Rate over … Beats.”**

For example, **R = 3, Rdiv = 2** distributes three rate events over two beats rather than placing three subdivisions into every beat. This lets you build rhythmic relationships that are not tied to subdivisions of a single beat.

Rdiv can be set from **1 to 64**. A value of **1** gives the ordinary per-beat rate behavior.

6.5 G displacement

G displacement shifts the grouping pattern relative to the underlying rate notes. Positive and negative settings move the grouping in opposite directions; zero gives the unshifted arrangement.

> The number of beats and rate positions does not change. The difference is *where the grouping begins*. Displacement is useful when you want the same grouping interval to start at a different point in the rhythmic cycle.

For a grouping value G, the available displacement is bounded by the grouping period (up to **−G + 1** through **G − 1**).

6.6 G on G

G on G adds a further **grouping layer**. Where G produces its primary grouping events, G on G places a secondary accent at an interval counted in those G groups. In simple terms, it can mark **every second, third, fourth, etc. group**.

G on G has its own displacement control, so the secondary layer can begin on a different group without moving the primary grouping itself. The available G on G values depend on how many G iterations occur in the BRG cycle; they are not one fixed range for every pattern.

The G on G layer is available in Advanced, and its volume can be adjusted separately in the mixer.

6.7 Extended B/G range

The **Extended B/G range** option increases the maximum values of **B to 512** and **G to 128** in either Basic or Advanced. It does not increase the maximum R value: R remains limited by the selected Basic or Advanced setting.

These larger values can be useful for long or complex patterns. They may also be harder to follow on the rings, so exact number entry is especially useful.

6.8 Switching Basic and Advanced

Switching between Basic and Advanced changes the available controls and their permitted ranges. BRG restricts this switch during playback, avoiding unexpected changes to the active configuration. Stop playback before switching.

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7. Grouping, Subgrouping, and Accents

7.1 Grouping is independent of the beat

G counts **rate notes**, not beats. This is why its accents can cross beat boundaries and form a separate pattern.

Take **B = 4, R = 3, G = 4**: there are twelve rate notes across four beats, and a grouping accent every fourth note. That gives three grouping accents across the cycle—a **3-over-4** relationship. The result comes from the grouping interval, not from changing the beat or triplet subdivision.

7.2 Group Accent

The **Group Accent** option emphasizes the **primary G hit** of each grouping cycle. It is available in Options and is independent of the numerical G value.

This is different from changing the sound assigned to G: the option distinguishes the primary grouping event from other G-layer events, including those introduced through subgrouping.

7.3 Subgrouping

Subgrouping divides each G group into smaller parts. For example, a group of seven rate notes may be divided as **2 + 2 + 3** or **3 + 2 + 2**. The total still equals G, but the internal positions of additional grouping events change.

The **Subgrouping** selector offers arrangements using groups of 2 and 3. It includes **“1 (none)”**, which leaves the group without any internal group-division. When available for the current G, other choices show the actual arrangement in the opened list.

Subgrouping changes the internal G pattern; it does **not** alter B, R, the number of rate notes, or the overall length of the G group.

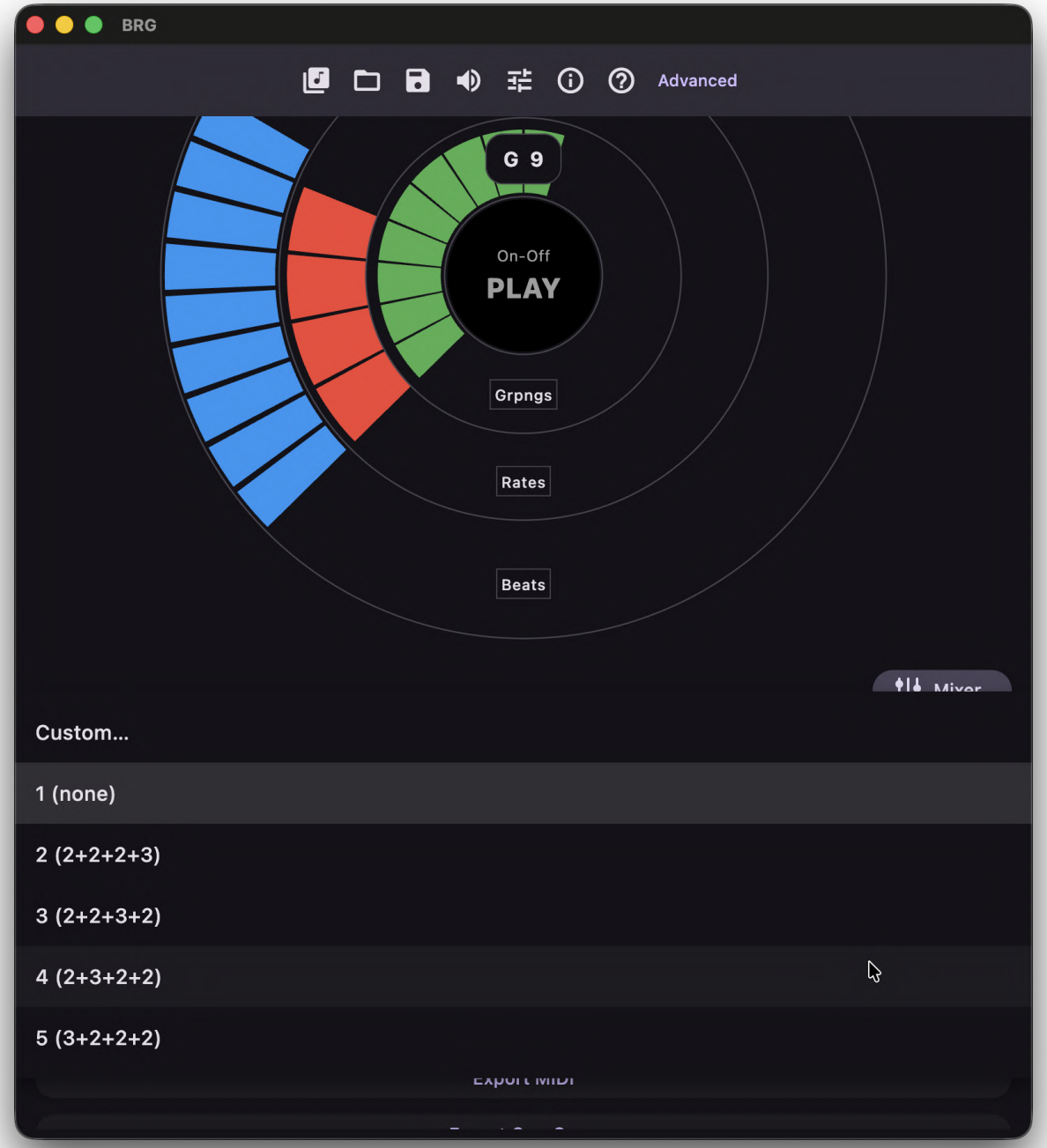


Figure 7.1. Subgrouping controls for the grouping layer.

7.4 Split 3 as 2+1

The **Split 3 as 2+1** option adds an extra G-layer hit inside subgrouping blocks of three. For a block of three rate notes, that introduces the internal division **2 + 1** without changing the total length of the block.

This option is available in **Options**. It is useful when you want to hear more detail within an existing subgrouping arrangement.

7.5 Custom subgrouping

For a grouping that is not adequately described by the built-in choices, select **Custom…** from the Subgrouping selector. The custom editor accepts an expression consisting of positive integer subgroup durations separated by `+`.

For repeated values, you can use `*` as shorthand. For example, with **G = 7**, either of the following represents the same grouping:

- `2 + 2 + 3`
- `2*2 + 3`

The numbers must add up **exactly to G**. The editor validates the entry before accepting it. BRG also limits a custom expression to **128 expanded subgroups**.

Custom subgrouping does not accept arbitrary mathematical expressions: parentheses, decimals, negative values, and implicit multiplication are not part of its input syntax.

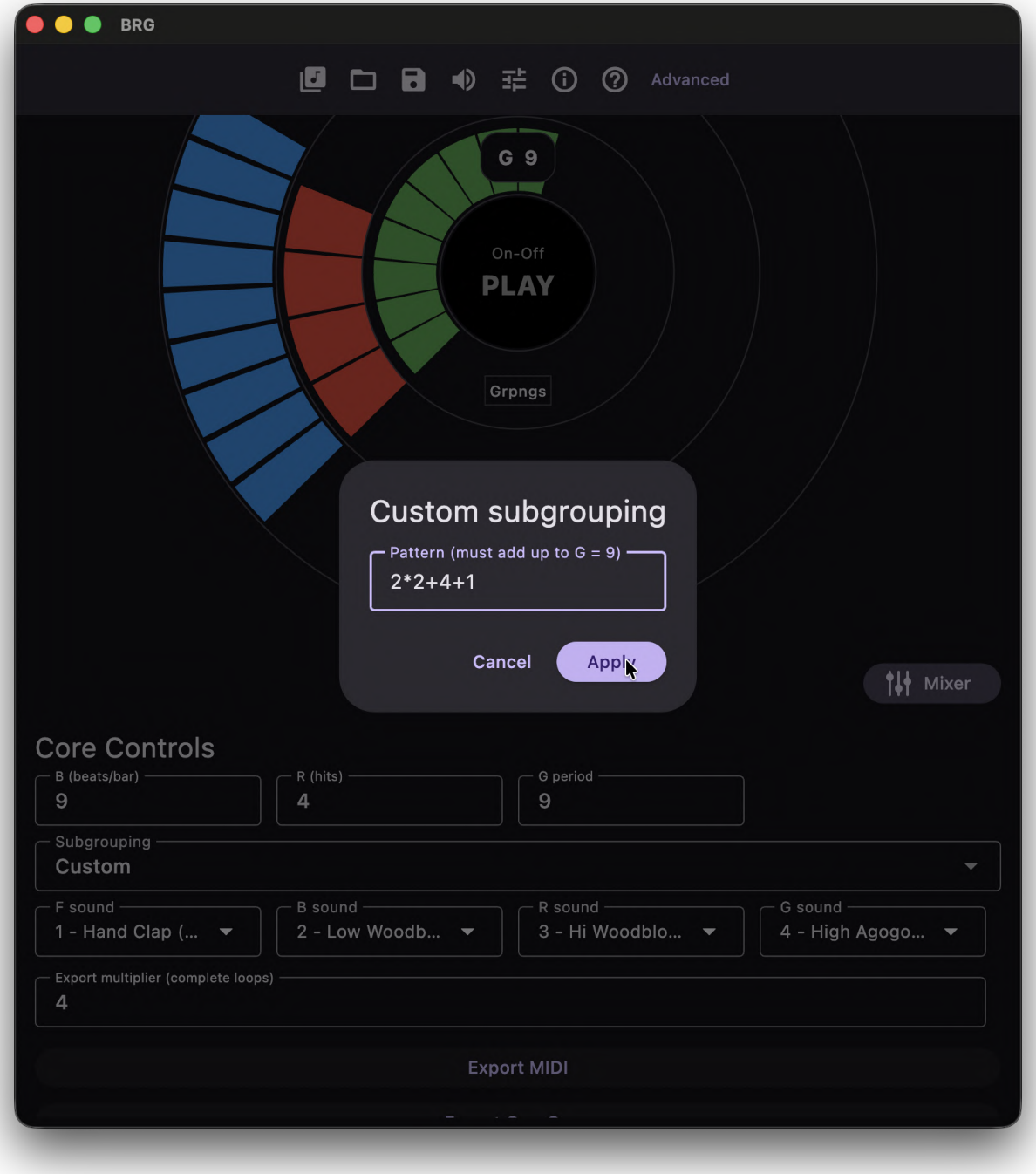


Figure 7.2. Custom subgrouping dialog: example grouping for G = 9.

7.6 Displacement and subgrouping together

G displacement moves the grouping's position relative to the rate. Subgrouping divides the group internally. These are related but distinct settings: one controls **where the grouping begins**, the other controls **how the notes inside the group are organized**.

A subgrouped pattern retains its internal spacing when the G grouping is displaced. In Advanced, G on G may add a further grouping accent above this primary structure.

7.7 Choosing the right amount of detail

You do not need to use subgrouping, Group Accent, Split 3, and G on G all at once. Each option adds a different kind of information to the pattern:

Feature	Changes
G	How many R notes belong to a group
G displacement	Where the grouping starts
Subgrouping	Internal division of a group
Split 3 as 2+1	Additional hit within subgrouping blocks of three
Group Accent	Emphasis on the primary G hit
G on G	Secondary grouping accent counted across G groups

The mixer can help distinguish the layers by changing their relative levels without changing the pattern itself.

---

8. Song Mode

8.1 What Song Mode does

Song Mode joins several BRG configurations into one ordered sequence. Each configuration becomes a **part**. A part has its own rhythmic settings, tempo, sounds, and a duration expressed as a number of **forms**.

Unlike Free Mode, which plays one configuration, Song Mode moves through the parts in sequence. You can build a song from existing presets or create parts from scratch.

A song can contain multiple occurrences of the same preset, and each part can be edited independently. Changes made to an original preset file later do not automatically change the saved part inside a song: the song stores the part's settings, not just a link to the preset.

8.2 Opening Song Mode Setup

Choose **Song** from the workflow mode selector to enter Song Mode. To open **Song Mode Setup** again, simply re-select **Song** in the same dropdown.

The setup window contains the **song draft**: the version you can create or edit. Meanwhile, the previously applied song remains in the main interface and transport, ready for playback. Editing the draft does not replace that active song until you choose **Apply**.

The setup window provides:

- **Song title (optional)** — a name used for the song and, when supplied, the default save filename.
- **Song repetitions** — the number of times the entire sequence is repeated.
- **Add preset** — add a part from a saved preset.
- **Add part from scratch** — create a new part without first choosing a saved preset.
- **Load**, **Save**, **Clear**, and **Apply** — manage and activate the song.

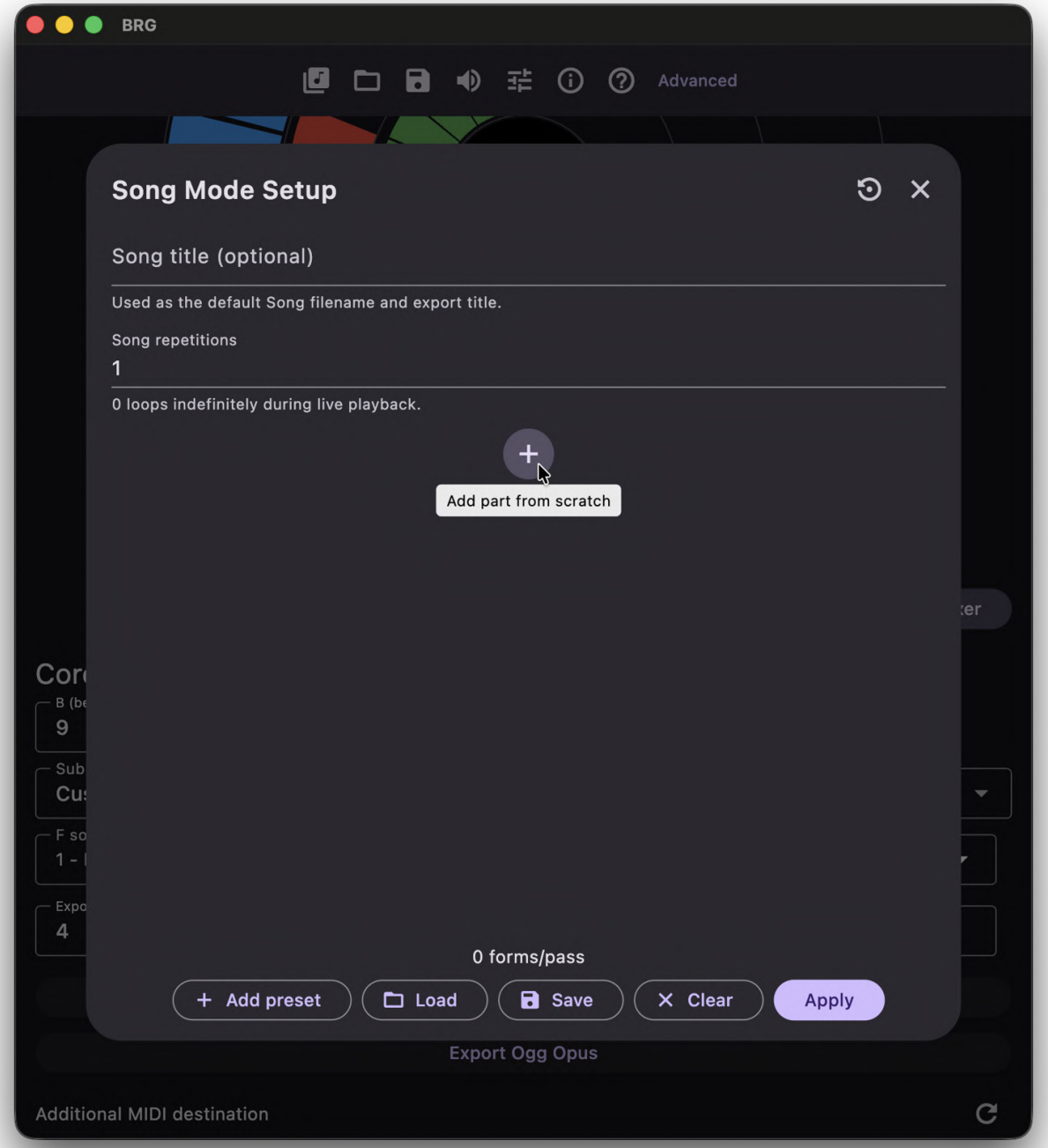


Figure 8.1. Song Mode Setup.

8.3 Building and editing parts

Use **Add preset** to bring a saved configuration into the song draft, or **Add part from scratch** to create a new one. Each row represents one draft part and shows its settings, including its tempo.

You can:

- **Edit** a part's rhythmic parameters, sounds, and mixer settings.
- **Duplicate** a part to reuse its settings elsewhere in the song.
- **Delete** a part that is no longer needed.
- **Reorder** parts using their drag handles.
- Set the **Forms** count for each part to control how long that part lasts.

The summary **forms/pass** shows the sum of the parts' form counts for one complete traversal of the song. The number of forms is a duration setting for a part; it should not be confused with the song-wide repetitions setting.

All these changes affect the **draft only**. The existing song remains available in the main UI and transport until you select **Apply**.

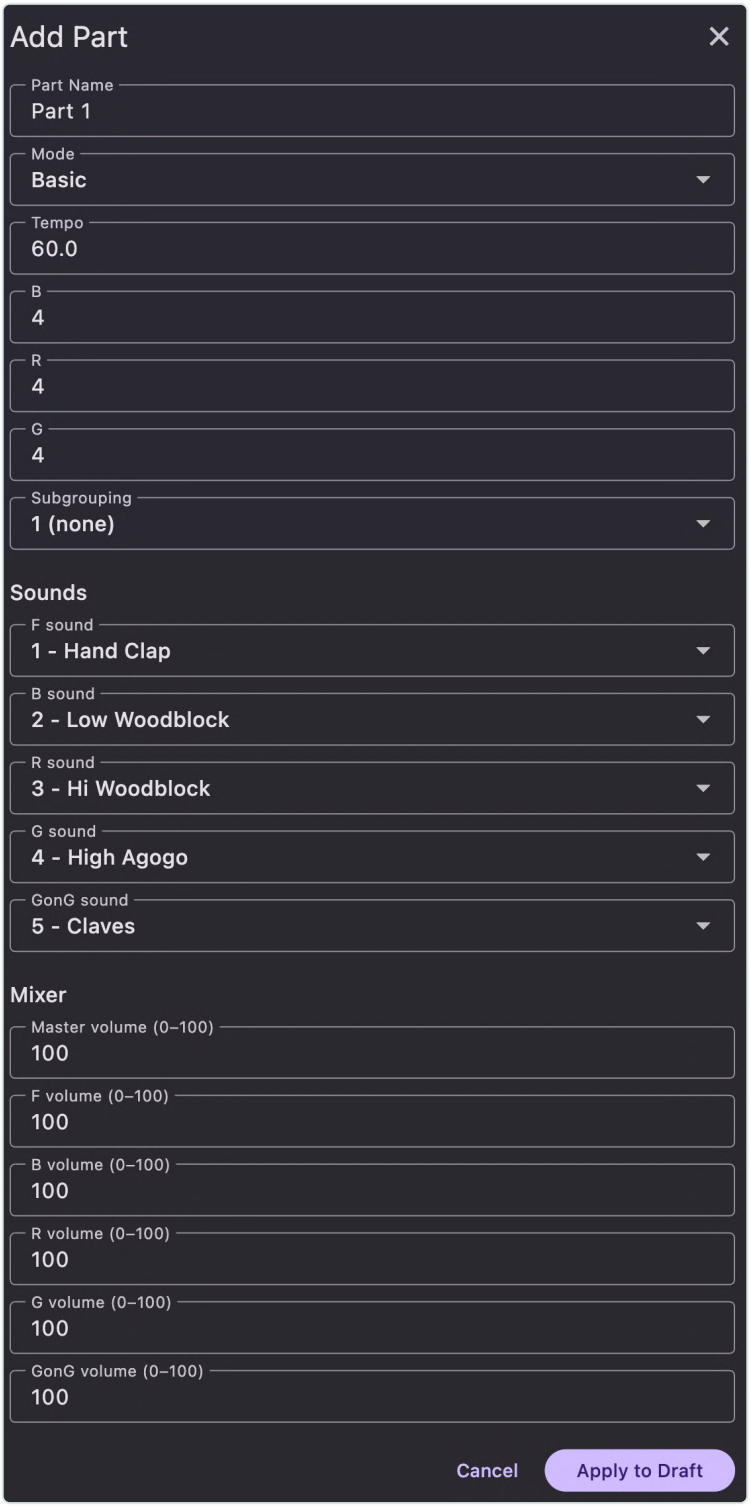


Figure 8.2a. Song-part editing controls — view 1.

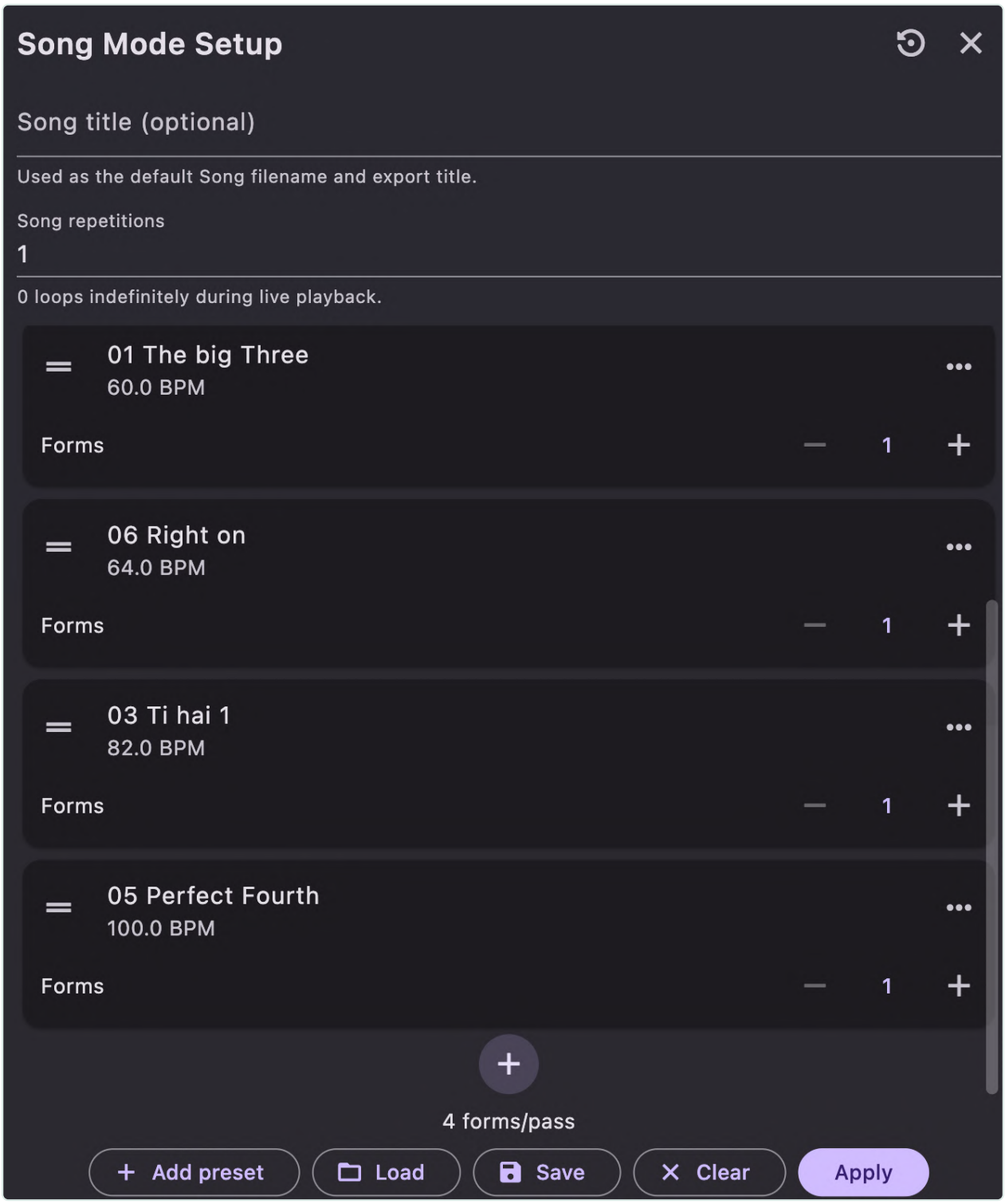


Figure 8.2b. Song-part editing controls — view 2.

8.4 Song repetitions

Song repetitions is set in the draft and applies to the entire sequence of parts once the draft is applied:

- **1** plays the song once.

- **2** plays all parts in order twice.
- **0** means the song repeats indefinitely during live playback, until you stop it.

For MIDI and audio exports, an indefinite repetition setting is interpreted as a finite pass, because an exported file must have an end. See Chapter 13 for the full export rules.

8.5 Applying and playing a song

Select **Apply** in Song Mode Setup to replace the active song with the current **draft**. BRG loads the first part's configuration into the main interface. Until you apply, the main UI and transport retain the previous song. After applying, playback follows the new song's part order without requiring you to start each part separately.

The Song transport includes controls to jump to the beginning, move to the previous part, pause or resume, move to the next part, and jump to the last part. During playback, the display identifies the current part and its progress, including the pass and form information.

BRG updates the visible rhythmic configuration as the song advances. Structural editing controls are restricted during Song playback so that an accidental change cannot disrupt the arranged sequence. The mixer supports live control, subject to platform-specific restrictions described in Chapter 11.

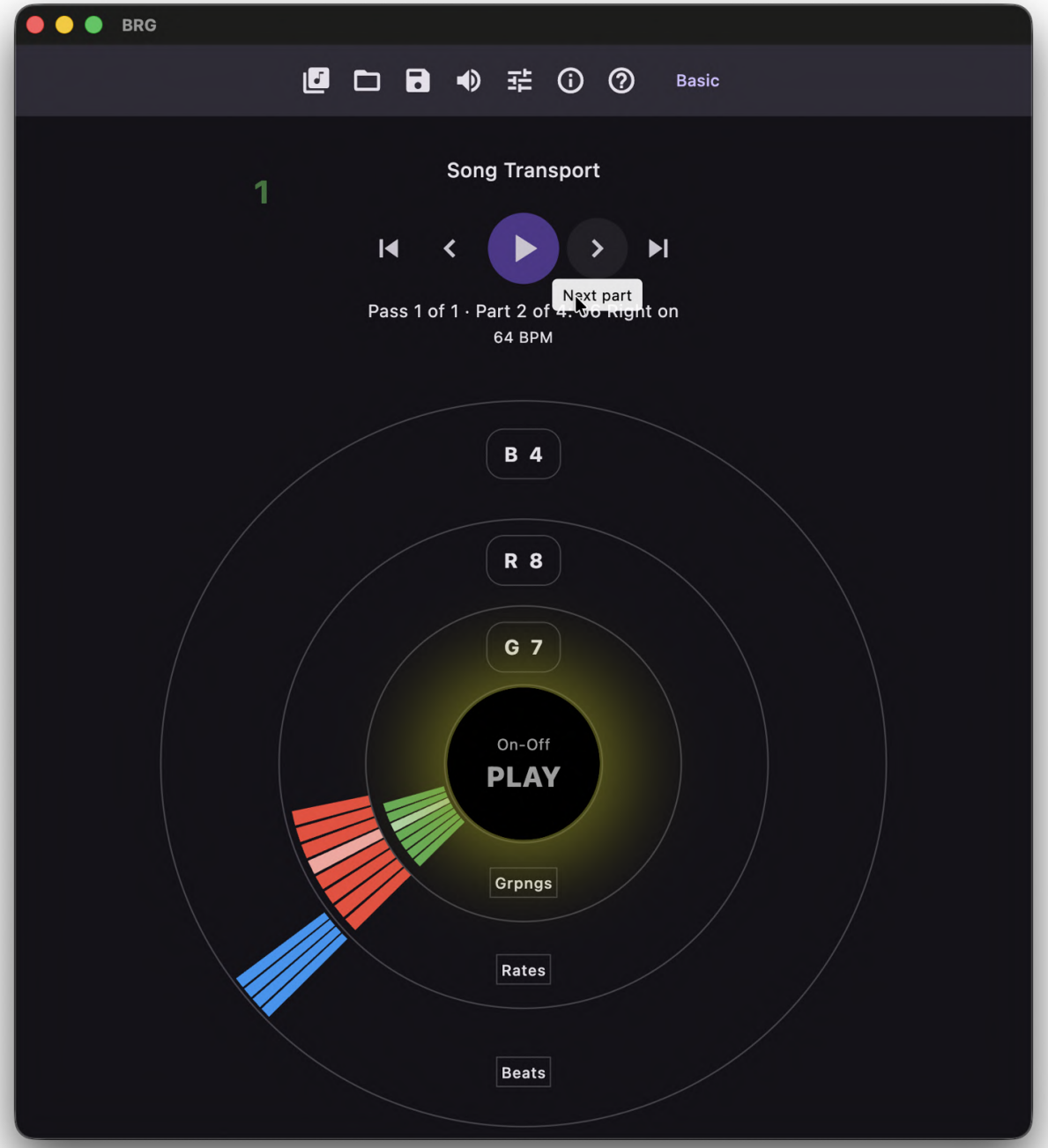


Figure 8.3. Song Mode transport and live main-screen view.

8.6 Saving and loading songs

Songs use the **`.brgsong`** format. A song file includes its parts and their settings, part order, form counts, and the song repetition count. You do not need to keep the original preset files alongside the song for its saved parts to work.

Use **Save** or **Load** from Song Mode Setup, or the corresponding mode-specific commands on the main screen. The app also provides a song library/manager, with platform-appropriate import and sharing controls.

If you make changes in setup without applying them, the draft and the active song can differ. The **Restore draft from active** action discards unapplied edits and copies the active song back into the draft; confirm before proceeding if prompted.

---

9. Setlist Mode

9.1 What Setlist Mode does

Setlist Mode organizes several saved songs into a larger sequence. A **song** contains rhythmic parts; a **setlist** contains songs.

This makes Setlist Mode useful when you need a particular order of complete compositions or prepared rhythmic sequences. It does not replace Song Mode's part editor: you arrange songs in Setlist Mode, and edit their contents in Song Mode.

9.2 Building a setlist

Select **Setlist** from the workflow mode dropdown. To open its setup window again, simply re-select **Setlist**. Choose **Add songs** to import saved songs into the list. Imported songs can then be reordered by dragging them into place.

For each entry, you can:

- **Duplicate** the song entry.
- **Delete** it from the setlist.
- Enable or disable **Auto-play next song** where offered.

Load, **Save**, **Clear**, and **Apply** are available at the bottom of the setup window. As in Song Mode, **Apply** activates the current draft.

An imported song with **0 song repetitions** loops indefinitely during live playback. BRG warns about such entries when you import them; you can advance manually when you want to continue to another song.

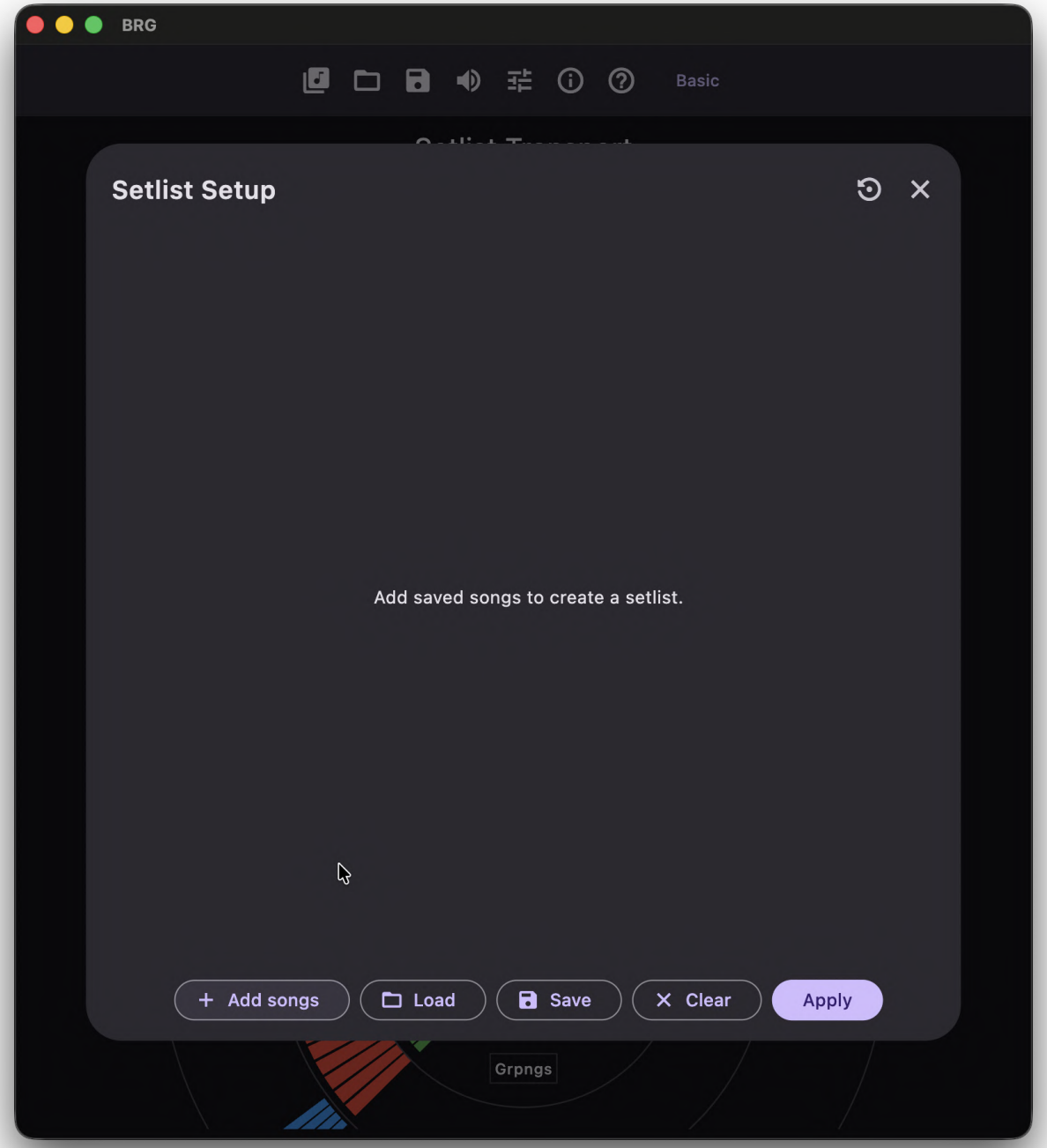


Figure 9.1a. Setlist Setup and entry editing — view 1.

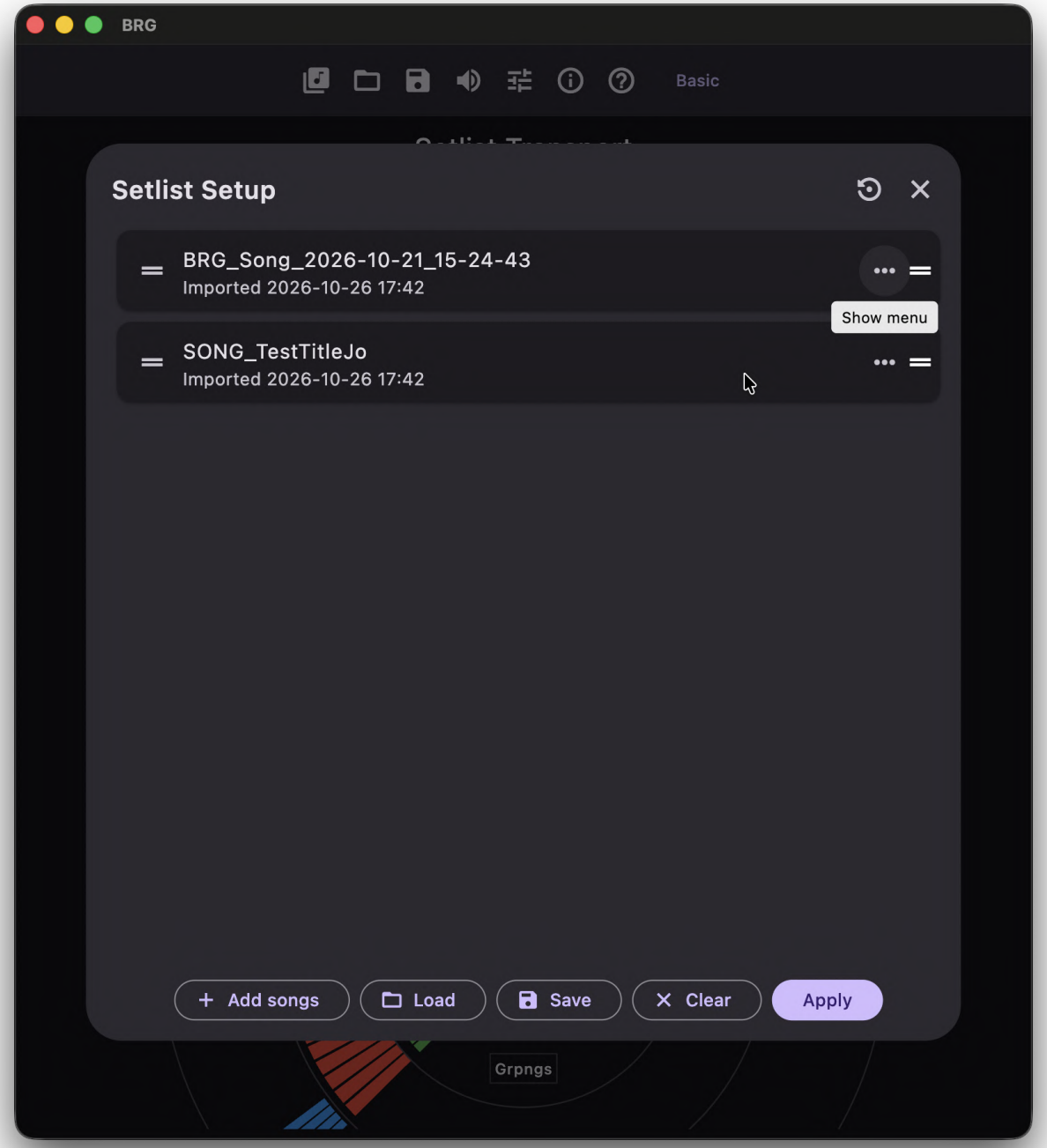


Figure 9.1b. Setlist Setup and entry editing — view 2.

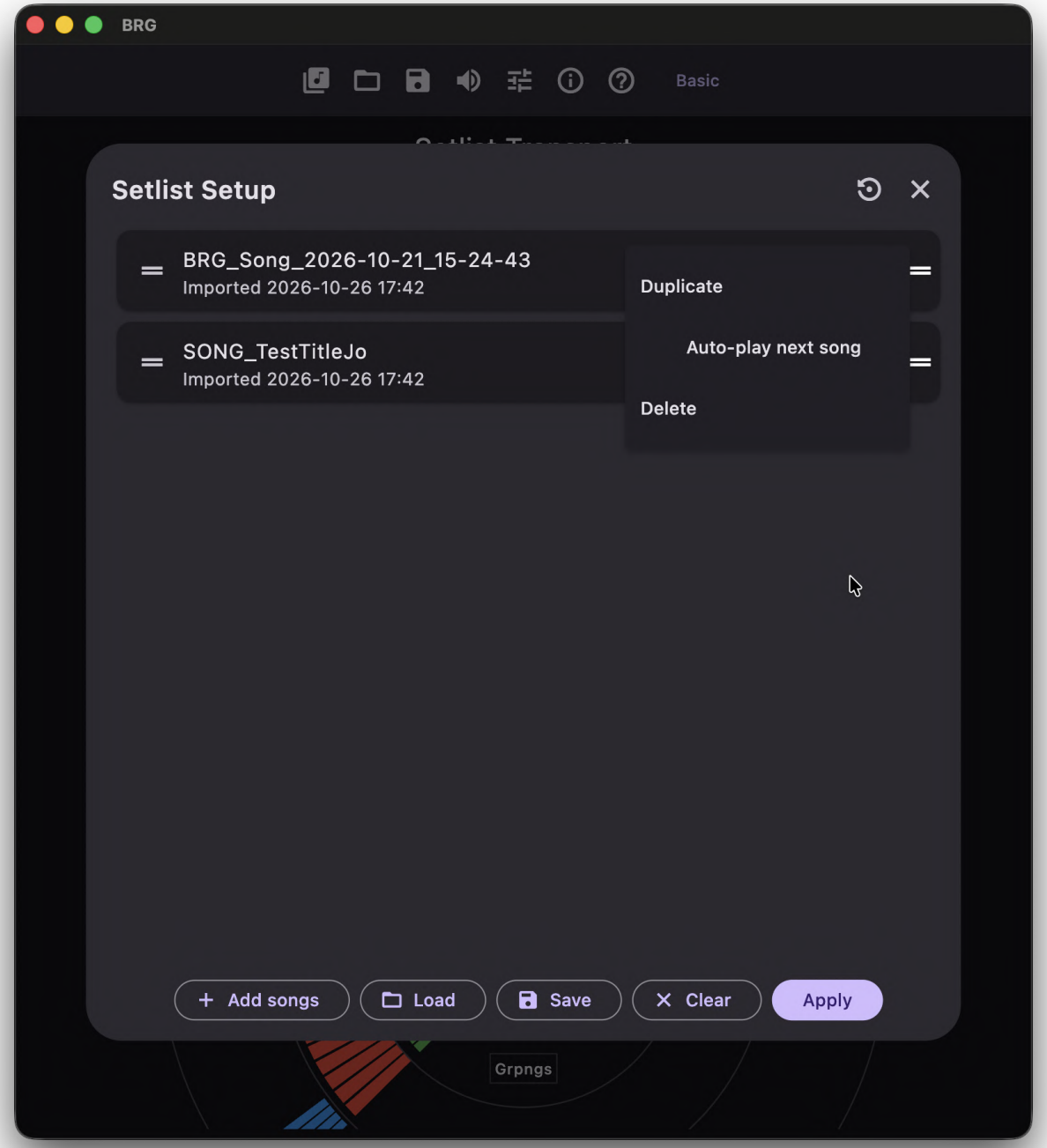


Figure 9.1c. Setlist Setup and entry editing — view 3.

9.3 How transitions work

The end of a finite song does **not necessarily** mean the next song starts playing immediately.

By default, BRG can finish the song and leave the next entry ready to play. You then start the next song yourself. For entries where **Auto-play next song** is enabled, BRG can instead continue automatically into the following song. This per-entry setting is available for songs that are not last in the setlist.

This distinction is important if you are using BRG in rehearsal or performance and want to control the pauses between songs.

9.4 The setlist transport

Setlist Mode has **two levels of navigation**:

- Setlist navigation selects or moves between songs.
- The Song transport controls parts and playback within the selected song.

> The two rows help distinguish *where you are in the setlist* from *where you are inside the current song*. The active display follows the selected song's parts and rhythm settings.

If a song is set to repeat indefinitely, you must advance manually to leave it; it will not reach a natural last repetition.

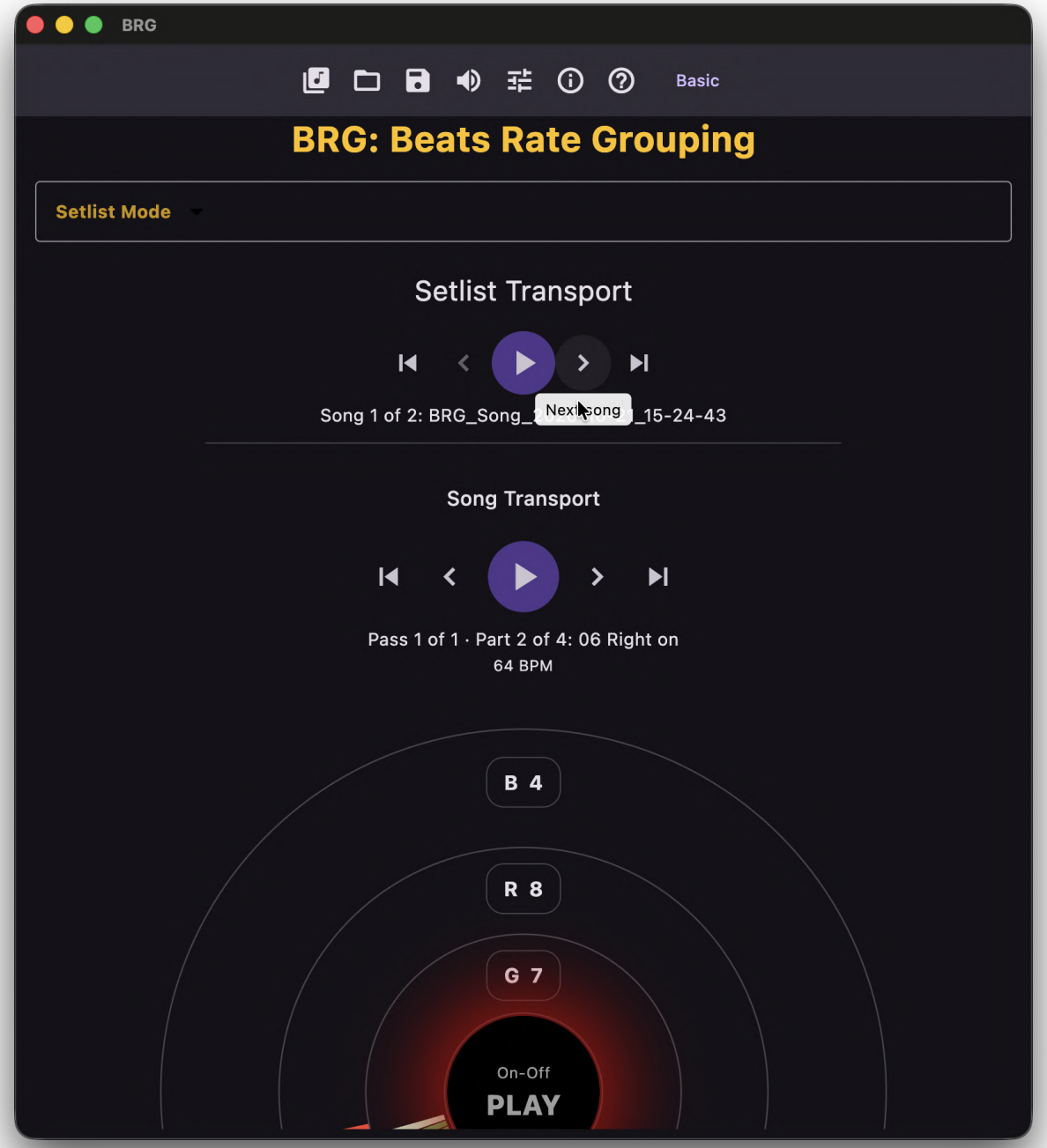


Figure 9.2. Setlist transport with song-level controls.

9.5 Saved copies and source songs

Setlist files contain **embedded song snapshots**, rather than references that depend on the original `.brgsong` files being present. This means a saved setlist remains usable if one of those original files is moved or removed.

It also means that editing a song outside the setlist does not automatically update the version already imported into it. To use a newer version, explicitly **re-import the song and replace the older entry** in the setlist. Where available, source and import timestamps help identify entries that may have newer source versions.

Setlists use the **`.brgsetlist`** file extension. Use Setlist Mode's manager, setup actions, or sharing features to organize and exchange them.

---

10. Practice Mode

10.1 What Practice Mode does

Practice Mode changes selected BRG parameters automatically at regular form boundaries. You define a starting configuration, choose which parameters should change, and specify how often the changes occur.

It is a way to make a structured sequence of configurations without manually entering a new value each time. Unlike Song Mode, which plays a list of individually prepared parts, Practice Mode generates changes from a set of **rules**.

10.2 Setting up a routine

Choose **Practice** from the workflow mode dropdown and set the BRG controls to the configuration you want to begin with. To open the Practice setup editor, simply re-select **Practice** in the dropdown.

The editor explains that **starting settings are captured from the current BRG controls when you apply the routine**.

Its main controls are:

- **Change every N F cycles** — determines how often changes occur. N must be at least 1.
- **Automated parameters** — enable the parameters that should change at each boundary.
- **Offset** — the signed amount added to, or subtracted from, a selected parameter at each change.
- **Limit (optional)** — a boundary at which the sequence wraps, rather than continuing through the entire parameter range.
- **Apply** — activates the routine defined in the editor.

For example, choosing a positive tempo offset changes the tempo upward at each configured boundary. Choosing a negative offset moves it downward. An offset cannot be zero.

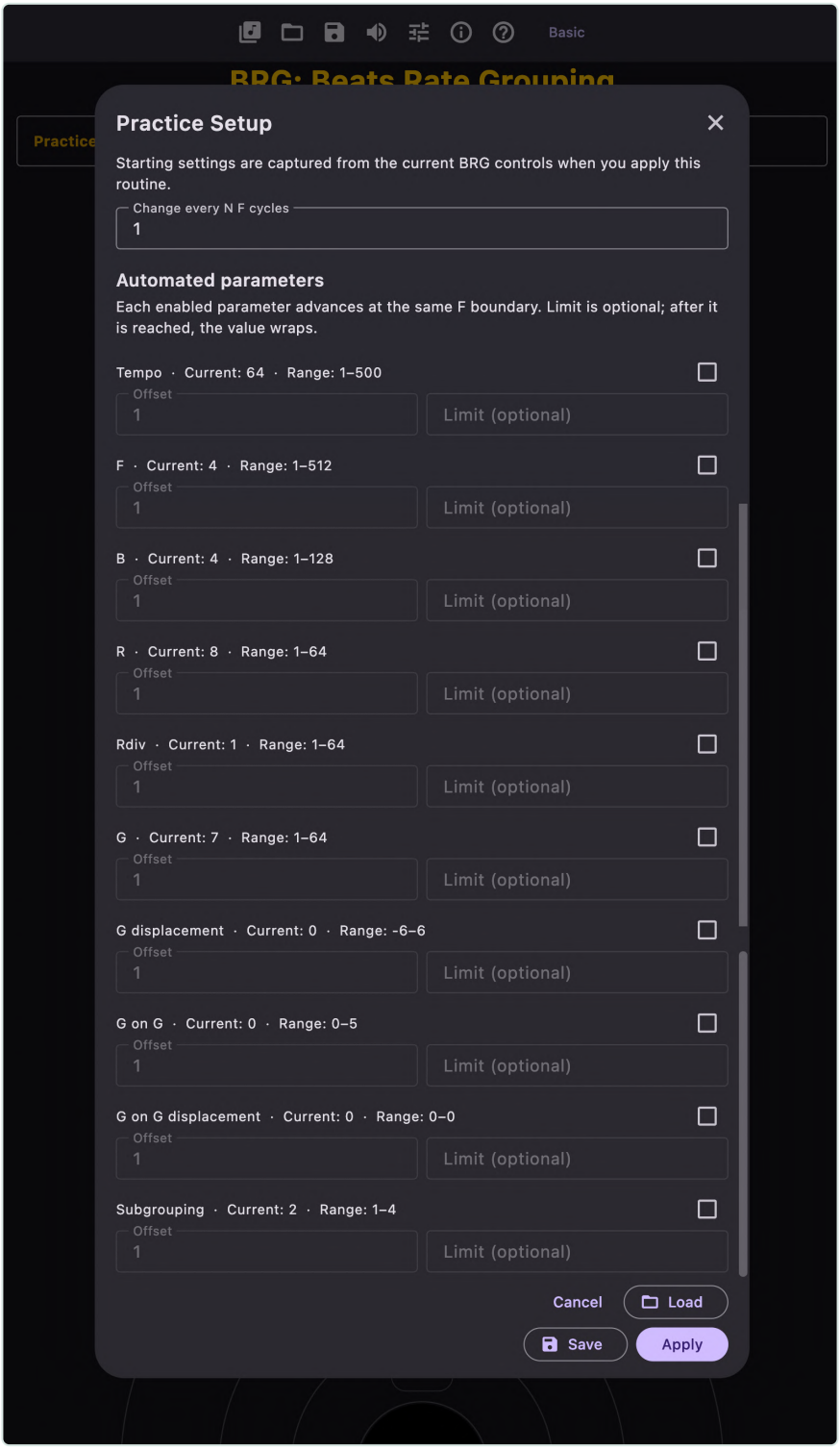


Figure 10.1. Practice Mode automation setup.

10.3 Choosing parameters

The rule system supports tempo and several rhythmic settings, including **F, B, R, Rdiv, G, grouping displacement, G on G, G on G displacement, and subgrouping**. Availability depends on Basic/Advanced mode and the current configuration.

Custom subgrouping is not an automation option. Its arrangement belongs to a specific G value, so the application restricts the combinations that could make an automated sequence inconsistent.

At each selected F boundary, BRG updates the enabled parameters together, using their saved offsets and optional limits. The changes remain aligned with the playback timeline.

10.4 Limits and wrapping

A rule with no optional limit cycles within the parameter's permitted range. With a limit, the sequence wraps within the configured progression instead of increasing or decreasing indefinitely.

For clarity, treat **Offset** as *the step applied at each scheduled change* and **Limit** as *the point where that progression turns back to its beginning*. The precise sequence depends on the parameter's allowed range and the starting value.

10.5 Playing and navigating a routine

After applying a routine, start playback normally. Practice Mode follows its scheduled sequence of changing settings. Its transport includes controls to move to the **previous** or **next automation boundary**, as well as the normal pause/resume and stop functions.

These navigation buttons skip between scheduled changes without redefining the routine's cadence or rules. The main controls and visual feedback follow the currently active settings.

You can change controls in the main UI during Practice playback, but **these manual changes do not alter the currently playing routine**:

- **Non-automated parameters:** The changed value remains displayed in the UI, but is not applied to playback while the routine is running. It becomes effective after you stop playback.
- **Automated parameters:** The manual value remains displayed until the next scheduled form/automation boundary. At that boundary, the next pre-scheduled value from the automation replaces it. The manual change does not recalculate the automation sequence.
- **If you stop before that boundary:** A manually changed value becomes the new starting value for the routine when it is played again.

In other words, a manual edit can prepare a new starting configuration, but it does not interrupt or rewrite an already scheduled Practice sequence.

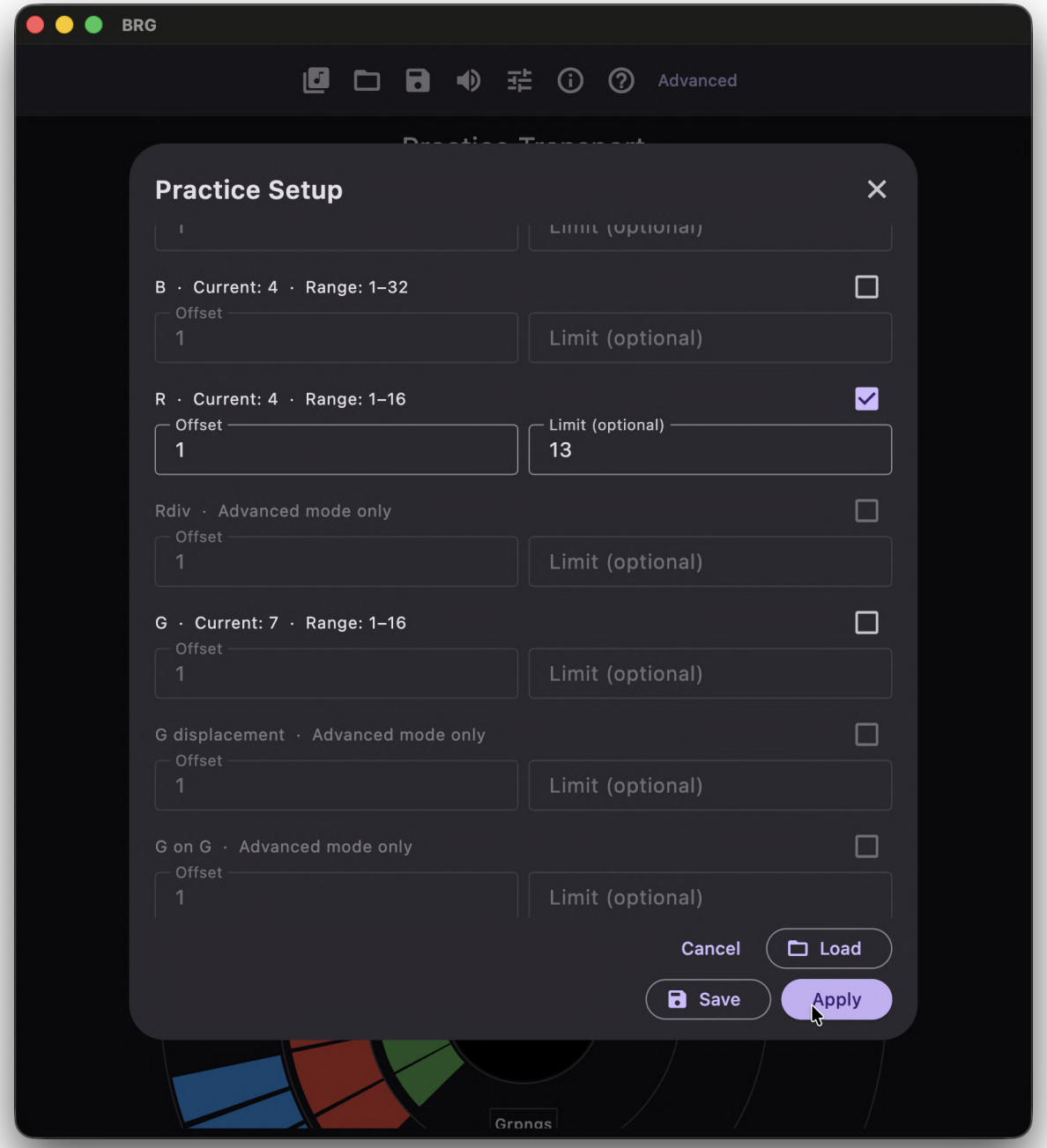


Figure 10.2a. Practice setup and transport states — view 1.

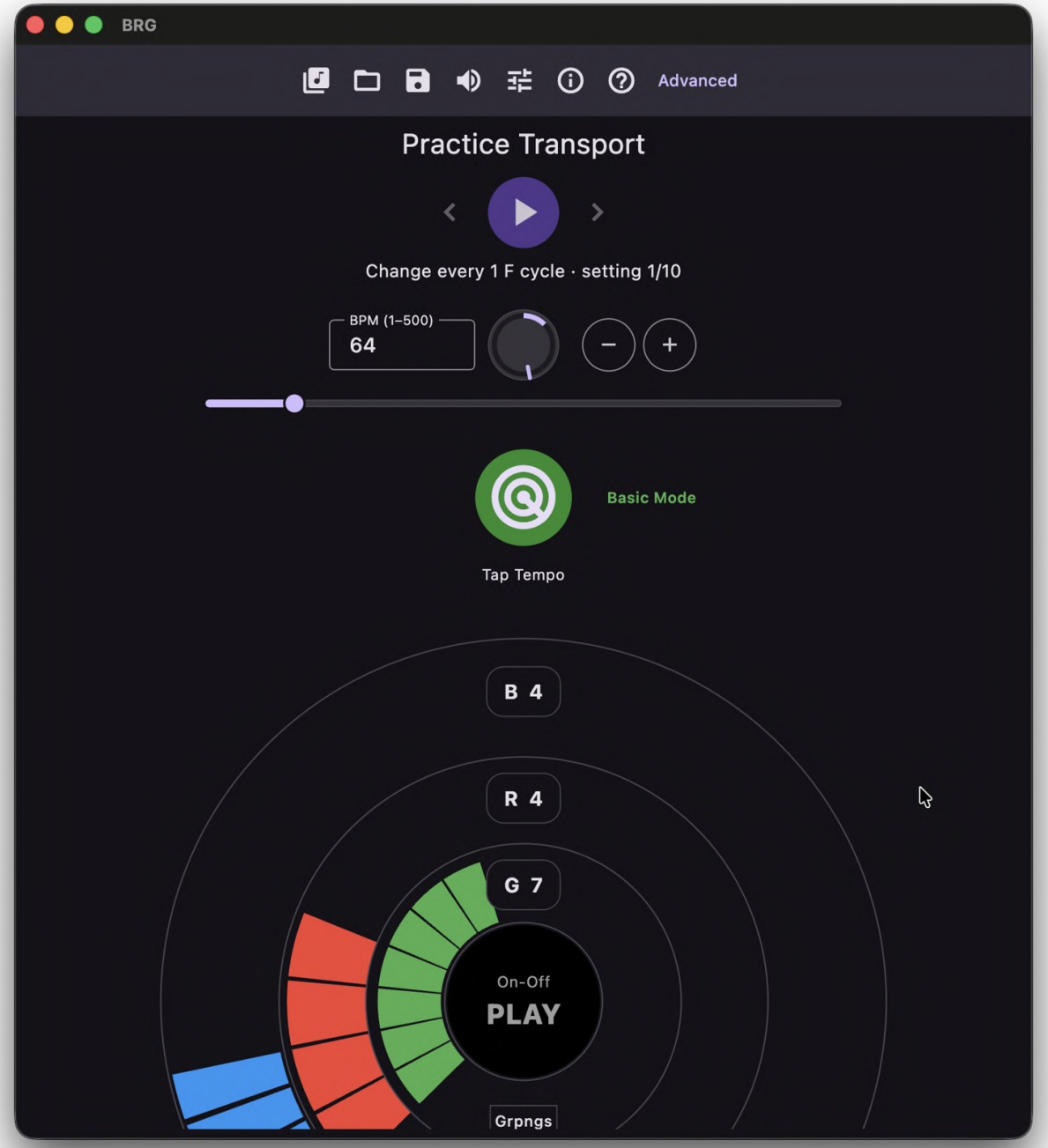


Figure 10.2b. Practice setup and transport states — view 2.

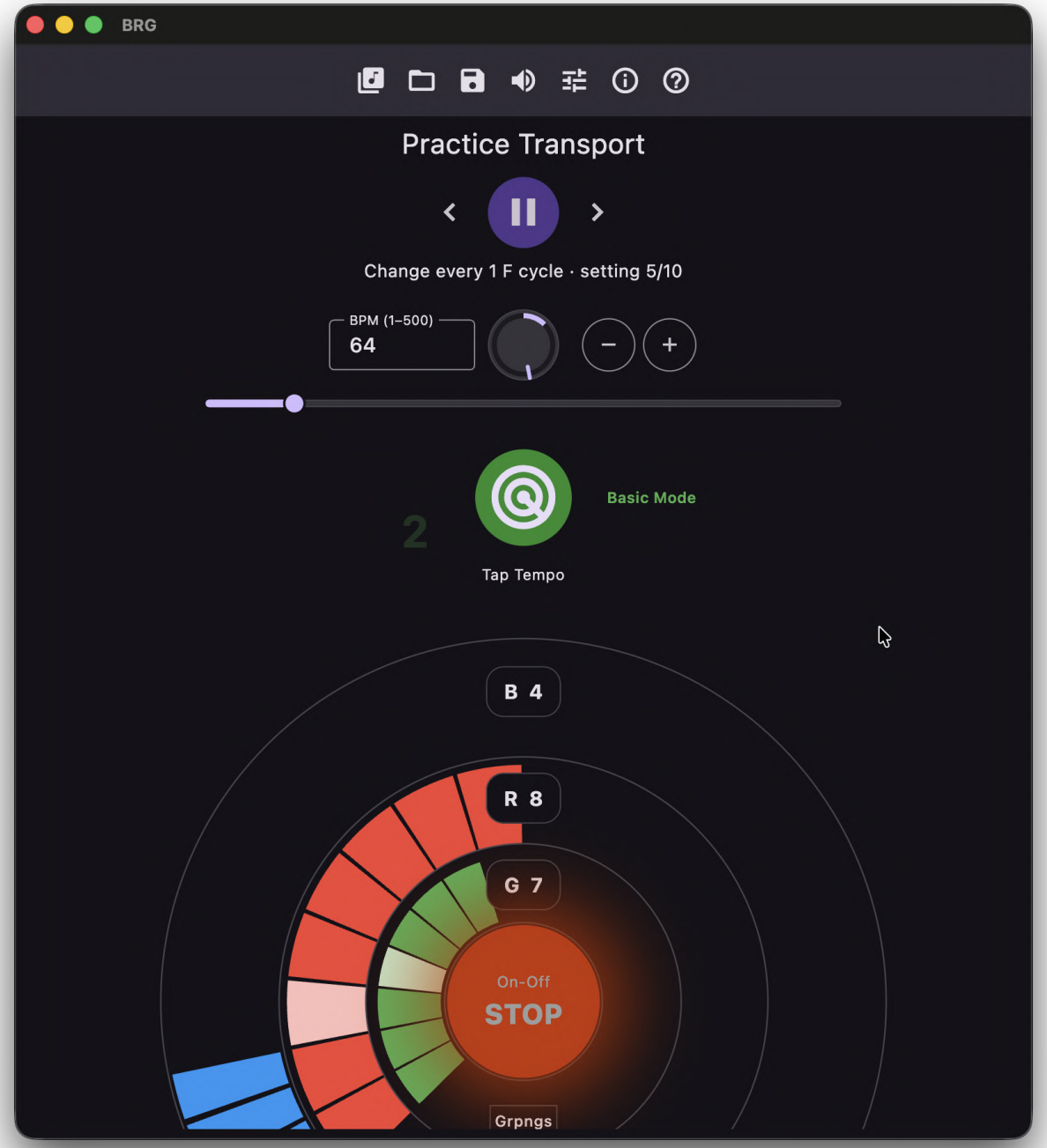


Figure 10.2c. Practice setup and transport states — view 3.

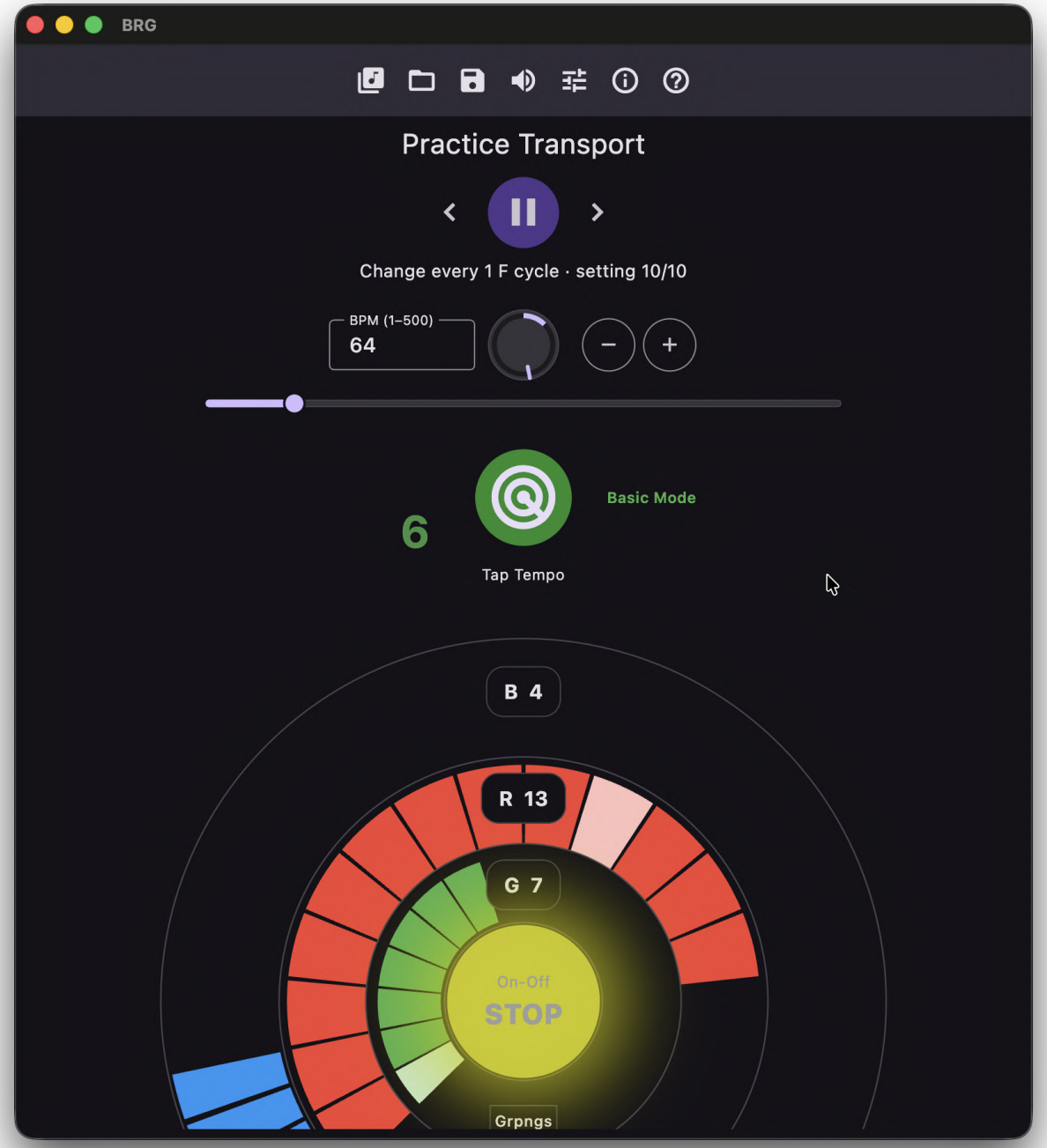


Figure 10.2d. Practice setup and transport states — view 4.

10.6 Saving and managing practice routines

Practice routines are saved as **`.brgpractice`** files. The saved routine contains the starting preset, the change cadence, and the enabled automation rules. It therefore preserves enough information to recreate the routine later.

The **Practice Routines** manager supports loading, saving, renaming, deleting, editing, searching, and sharing routines. On supported mobile platforms, the file can also be opened through the system's **Open With** workflow.

As with the other workflow modes, re-select **Practice** in the dropdown to return to its setup window. Applying a setup and saving a file are different actions: **Apply** changes what BRG is ready to play; **Save** preserves the routine for future use.

---

11. Sounds and Mixer

11.1 BRG's sounds

BRG includes **26 percussion sounds**. Each sound has a normal and an accented sample. The same bundled sample bank is used for internal playback on Android, iOS, macOS, and Windows, so the available sound choices are consistent across platforms.

Each rhythmic layer can be assigned a sound independently:

- **F** — Form/cycle marker.
- **B** — Beats.
- **R** — Rate.
- **G** — Grouping.
- **G on G (GonG)** — Additional grouping layer in Advanced Mode.

You may assign the same sound to more than one layer. The rhythmic layers remain distinct even when their timbres match. Choose **No sound** for a layer that should not produce an internal sound.

The sounds include hand clap, woodblocks, agogos, claves, cowbell, congas, bass drum, snare and hi-hats, cymbals, tabla variations, and darbuka sounds.

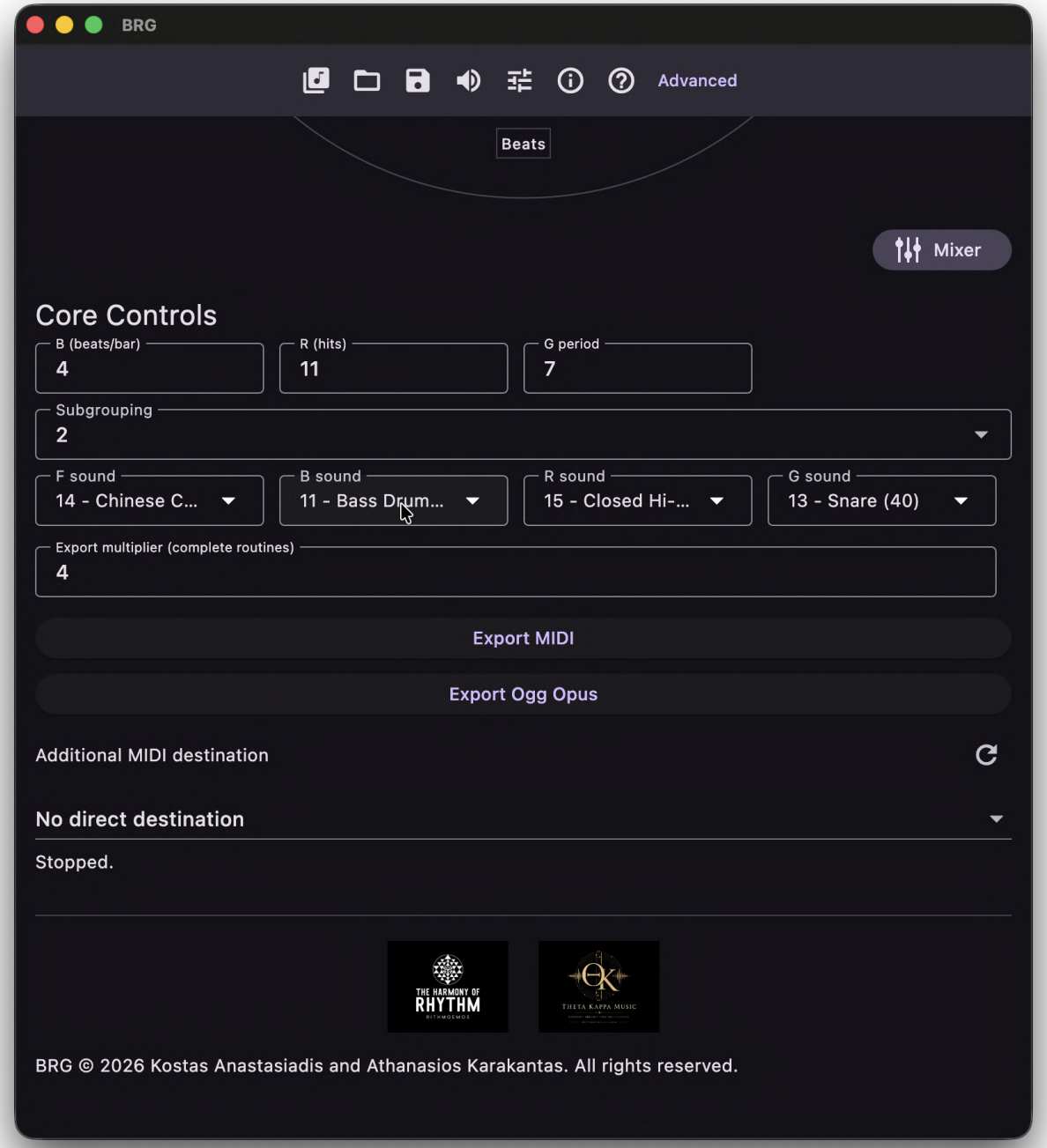


Figure 11.1a. Layer sound selection and sound-picker choices — view 1.

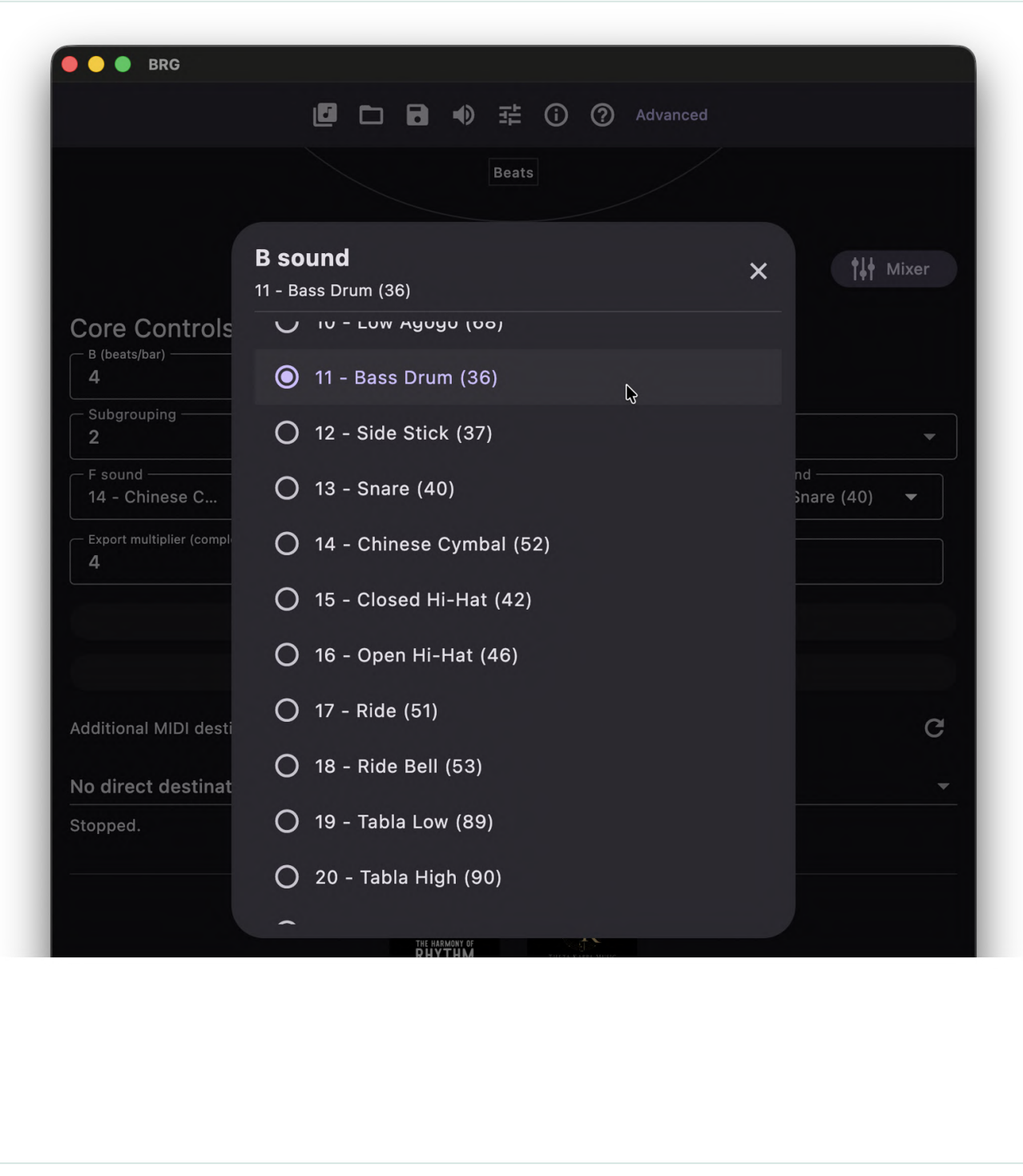


Figure 11.1b. Layer sound selection and sound-picker choices — view 2.

11.2 Opening the Mixer

Select the **Mixer** control to open its dedicated window. The Mixer provides a **Master Volume** fader and individual faders for **F, B, R, G, and GonG**, plus an **Output Boost** control.

The Mixer also includes **M** (Mute) and **S** (Solo) controls for each rhythmic layer.

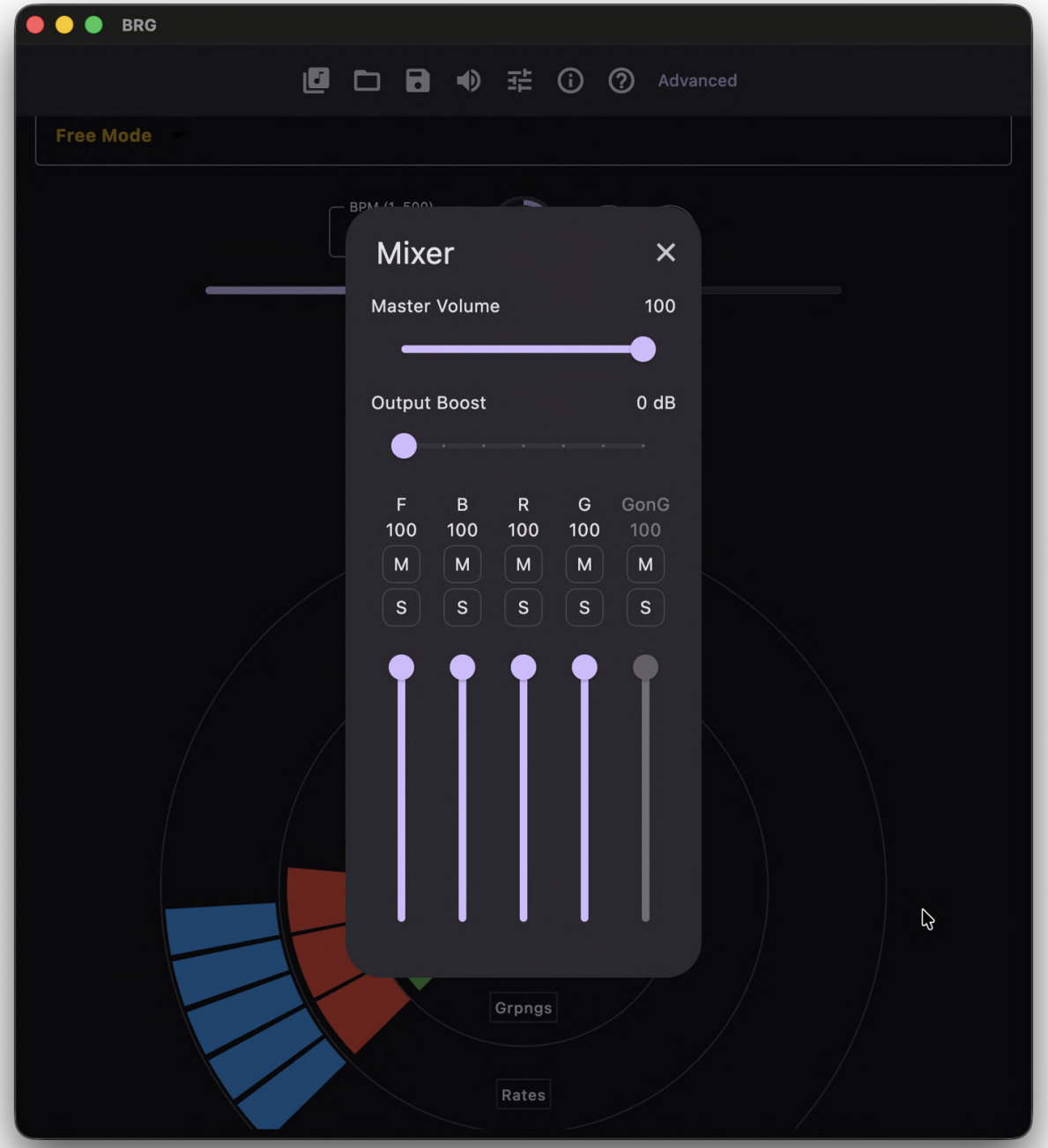


Figure 11.2. Mixer with per-layer faders, Solo and Mute.

11.3 Volume, Mute, and Solo

The **Master Volume** adjusts the overall level of the rhythmic mix; each layer fader adjusts that layer relative to the others. The displayed volume settings range from **0 to 100**.

- **Mute (M)** silences the selected layer in the mix.

- **Solo (S)** keeps selected soloed layers audible and suppresses layers that are not soloed.
- Multiple layers may be soloed together.

The GonG fader is unavailable in Basic Mode because that rhythmic layer is not active there. Its Mute and Solo selections can still be visible and editable, but they do not change the effective Basic Mode mix.

Mixer settings can be stored with presets, and songs and setlists use the mixer values included in their embedded configurations. In modes with sequenced parts, the mix can change as the active part changes.

11.4 Live mixing and saved arrangements

In **Free Mode**, the Mixer adjusts the current rhythm. Mixer changes can be heard during playback without changing the B/R/G rhythmic structure.

In **Song Mode**, parts have their own stored mixer settings. The Mixer provides a **live override** option, allowing you to adjust the mix while a song plays without rewriting the stored part configurations. Disabling that override restores the arrangement's saved mixer behavior.

Setlist playback uses its embedded songs and their part settings. Practice Mode has its own live-state restrictions, described in Chapter 10. These should not be confused with changing an arrangement's stored data.

11.5 Output Boost

Output Boost adds **0 to +6 dB**, after the Mixer. It starts at **0 dB** every time BRG is launched. It remains in effect when switching modes or loading files, but is **not saved** with presets, songs, setlists, or practice routines.

Output Boost affects **internal sample playback** and **Ogg Opus audio export**. It does **not** increase MIDI velocities or change MIDI-file exports.

A positive boost can clip a dense combination of simultaneous samples. If the output distorts, lower Output Boost or reduce the Mixer levels.

11.6 Sound choice versus MIDI sound

The internal sound selection determines the percussion sample you hear in BRG. When BRG exports MIDI or sends live MIDI, it transmits **MIDI notes**, not the audio samples themselves. The receiving instrument or software therefore determines what is heard externally.

This is especially important for the sounds beyond the standard General MIDI percussion choices: BRG assigns them MIDI note numbers, but an external instrument may play a different sound for those notes. See Chapters 12–13 and Appendix B.

---

12. Live MIDI Output

12.1 What live MIDI output does

BRG can send its rhythmic note events to another MIDI application or device **while playing**. You can use this to trigger a DAW instrument, percussion sampler, or another MIDI receiver.

Live MIDI output is separate from BRG's internal sound engine. Sending MIDI does not automatically mute BRG's samples. Conversely, muting BRG's internal audio does not by itself turn off its live MIDI output.

Live MIDI also differs from **Export MIDI**, which creates a `.mid` file instead of transmitting a performance in real time.

12.2 Choosing an additional MIDI destination

On Android, iOS, macOS, and Windows, BRG has an **Additional MIDI destination** selector in the main screen's export/output area.

1. Connect or make available a MIDI receiver through the operating system.
2. In BRG, find **Additional MIDI destination**.
3. Use **Refresh MIDI destinations** if the receiver is not listed.
4. Select the intended receiver from the dropdown.
5. Start BRG playback, then check the receiver for incoming notes.

Choose **No direct destination** to turn off that additional direct route. Destination selection is **session-only**; it is not a saved preset or song setting.

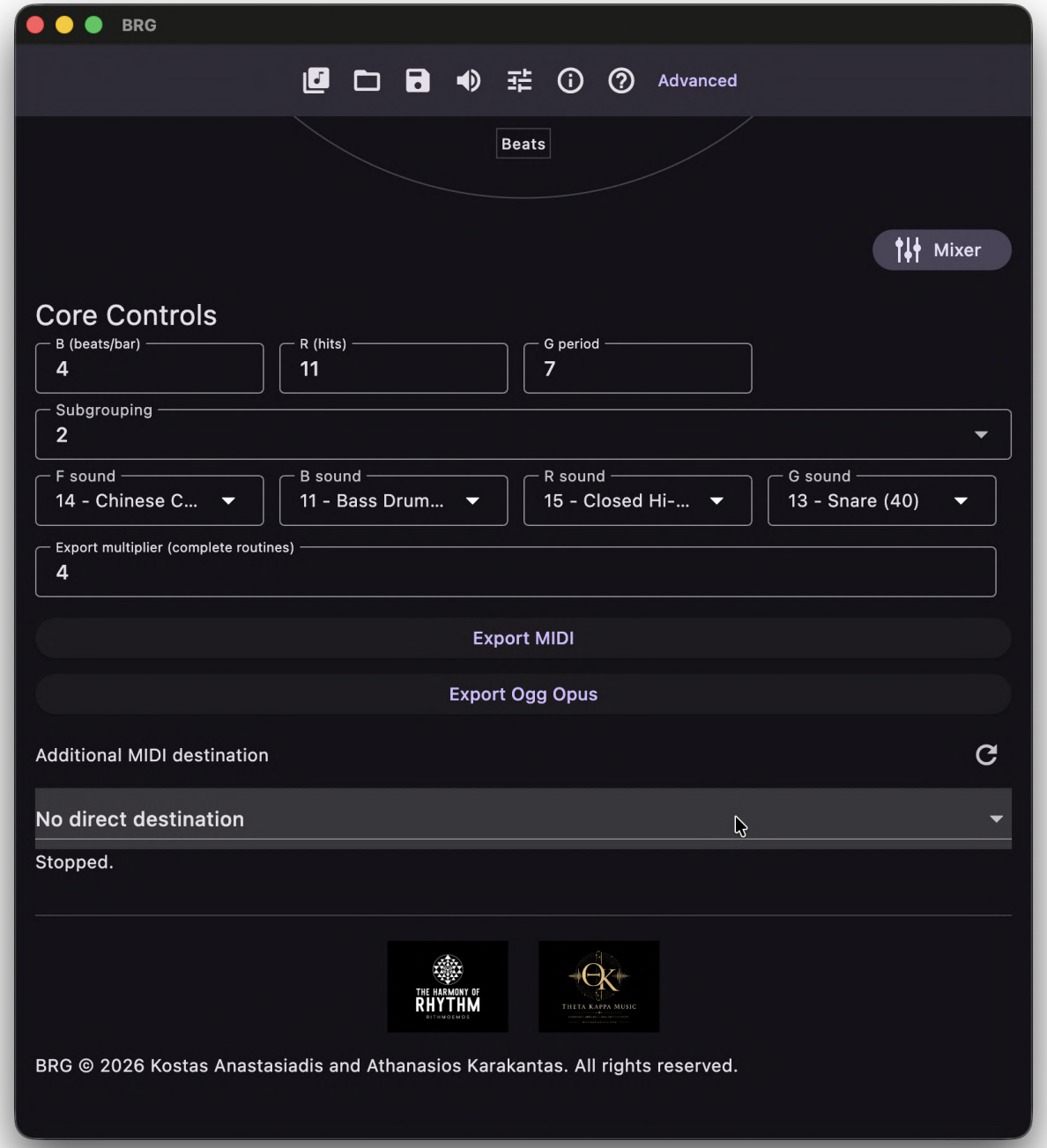


Figure 12.1. macOS live MIDI destination controls.

12.3 macOS

On macOS, BRG publishes a virtual Core MIDI source named **BRG MIDI Output**. A compatible MIDI application can select that source as an input without requiring you to choose an additional destination inside BRG.

You can also select an **Additional MIDI destination** in BRG to transmit directly to another endpoint. Both paths may be active simultaneously.

Important: If the same DAW receives both the virtual **BRG MIDI Output** source and BRG's additional direct route, it may receive duplicated notes. Use the route you intend, rather than enabling both into the same destination accidentally.

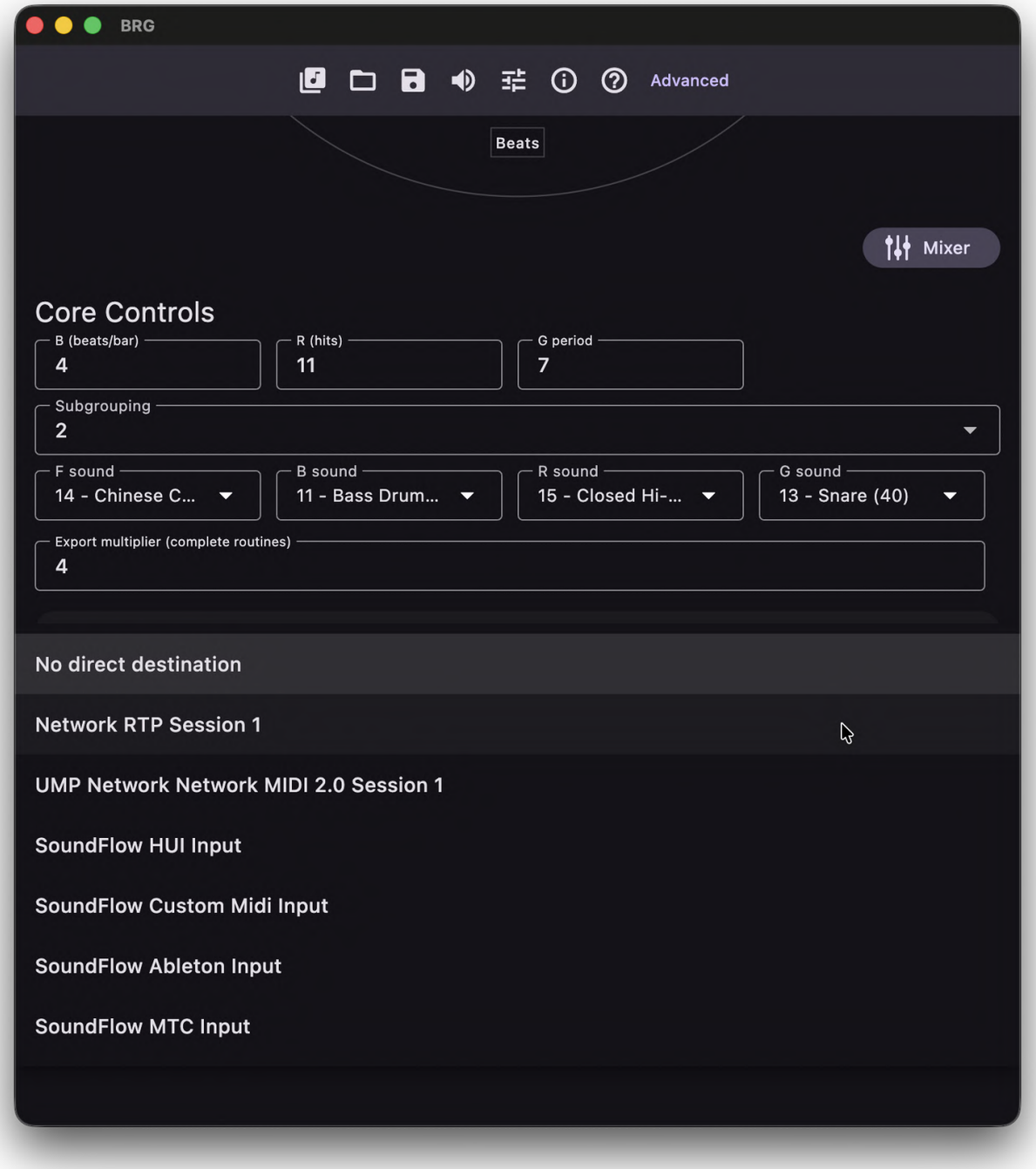


Figure 12.2. macOS MIDI routing controls and output options.

12.4 Android

BRG can send live MIDI directly to destinations made available by Android's MIDI system. This may include a compatible USB MIDI connection or a virtual MIDI destination provided by another Android app.

First establish the required connection or open the receiving MIDI service. Then **refresh the destination list in BRG** and select the correct endpoint. BRG does not itself create or join a network MIDI session simply by selecting a destination; any required bridge or network application must handle that connection.

A wired USB MIDI route to Logic was tested during development.

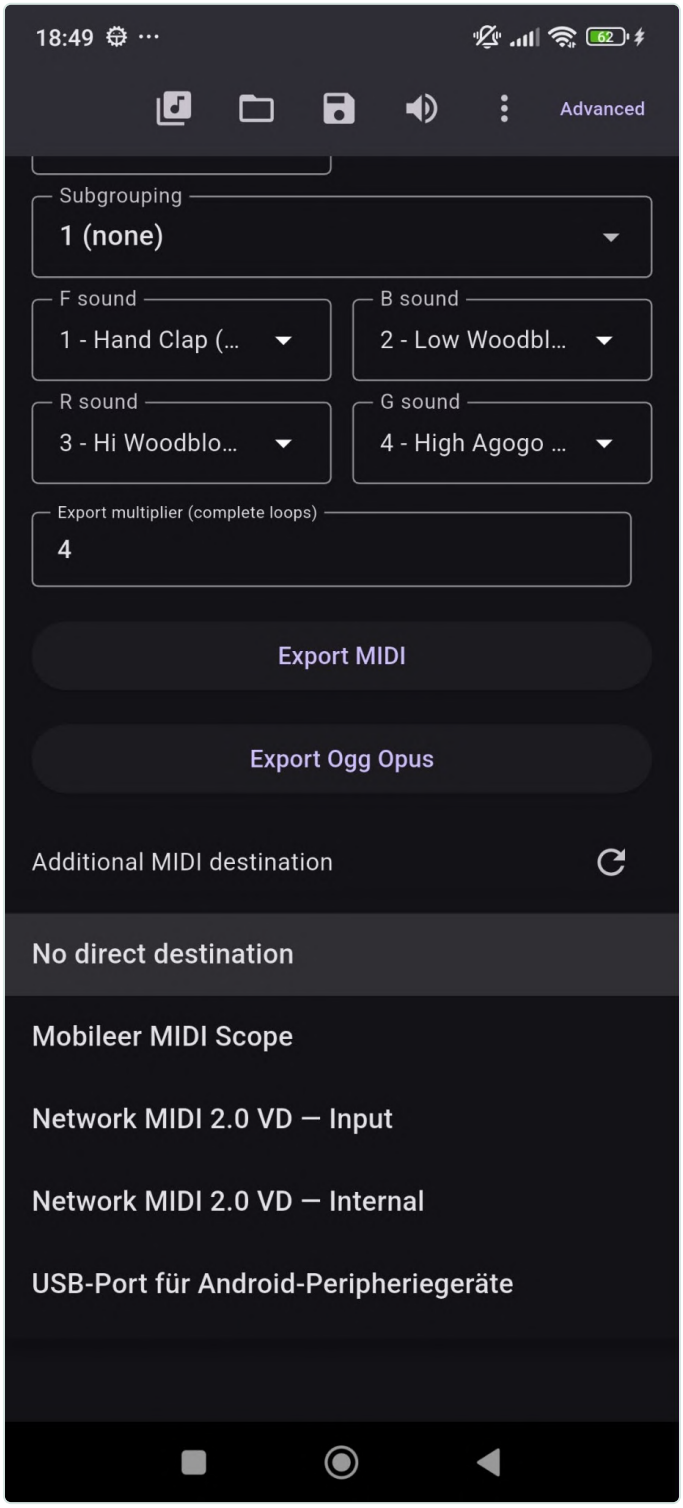


Figure 12.3a. Android live MIDI routing and connected setup — view 1.



Figure 12.3b. Android live MIDI routing and connected setup — view 2.

12.5 iOS

BRG uses **Core MIDI destinations** made available to the device. Select the intended destination in BRG after the system or receiving application has exposed it.

For a wired connection to a Mac, development testing confirmed **Inter-Device Audio and MIDI (iDAM)** as a working route. Enabling iDAM may also route the iPhone's audio to the Mac; this is expected behavior of that connection.

For network MIDI, establishing a route inside an iOS MIDI routing app is not necessarily sufficient to initiate the network session. The session must first be connected by a suitable host or bridge setup; then choose the resulting Core MIDI destination in BRG.

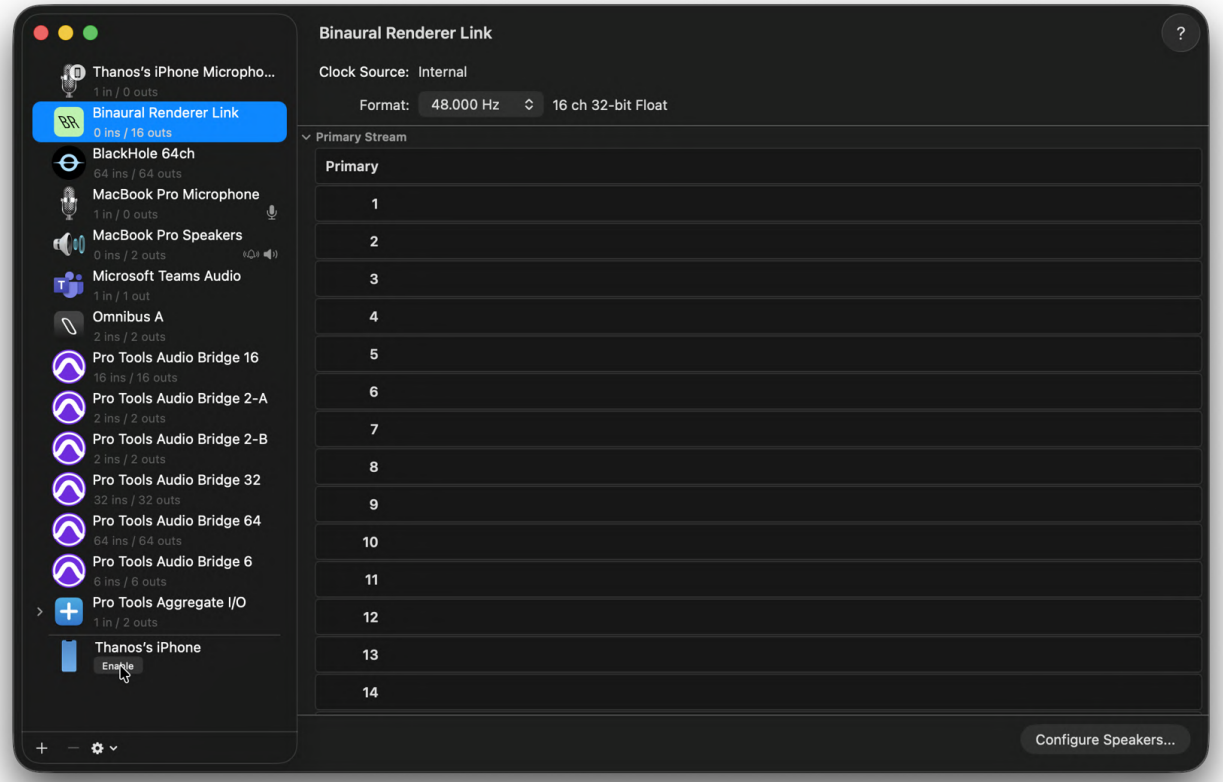


Figure 12.4a. iOS MIDI destination selection and wired Mac connection — view 1.

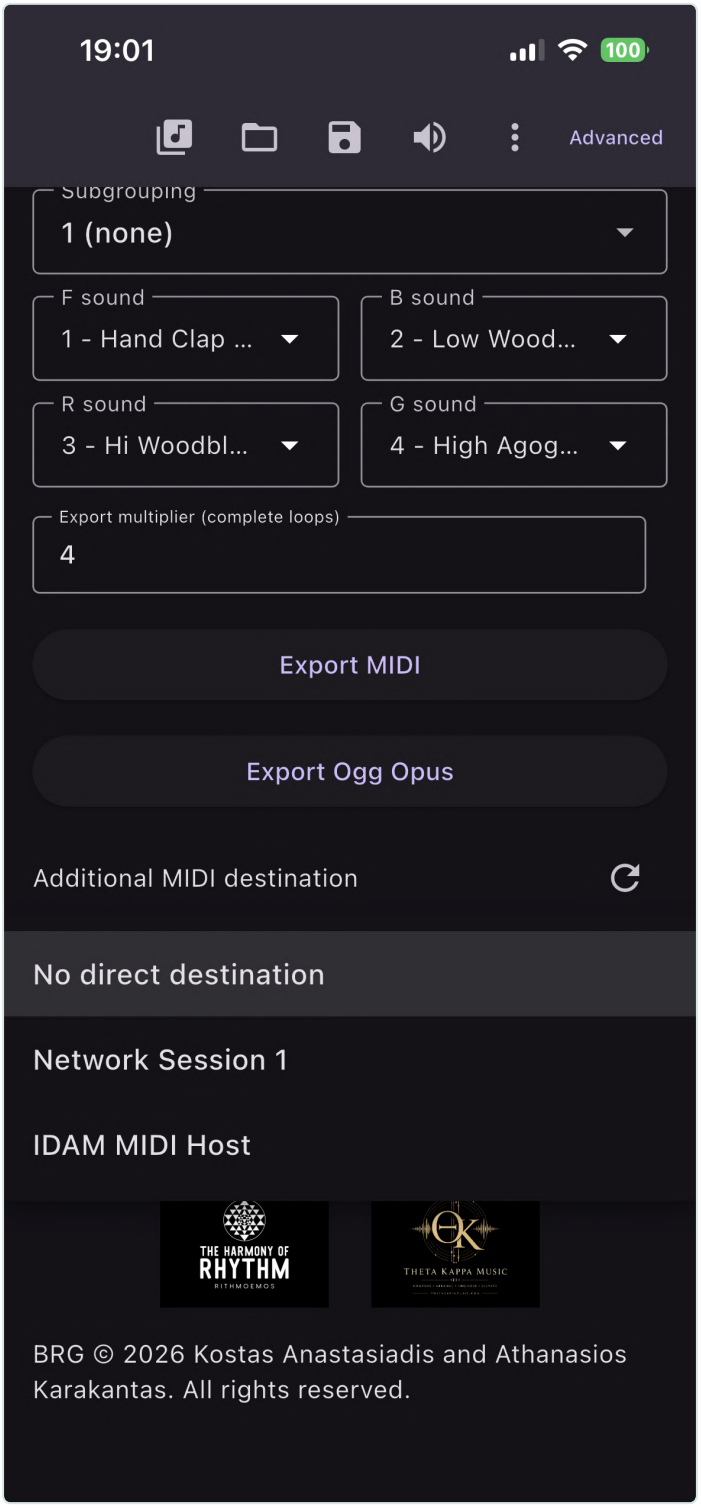


Figure 12.4b. iOS MIDI destination selection and wired Mac connection — view 2.

12.6 Windows

BRG can send live MIDI through the destinations exposed by the Windows MIDI system. Make the destination available, use **Refresh MIDI destinations**, and select the intended output in BRG.

The internal percussion samples continue playing independently of the selected external MIDI route.

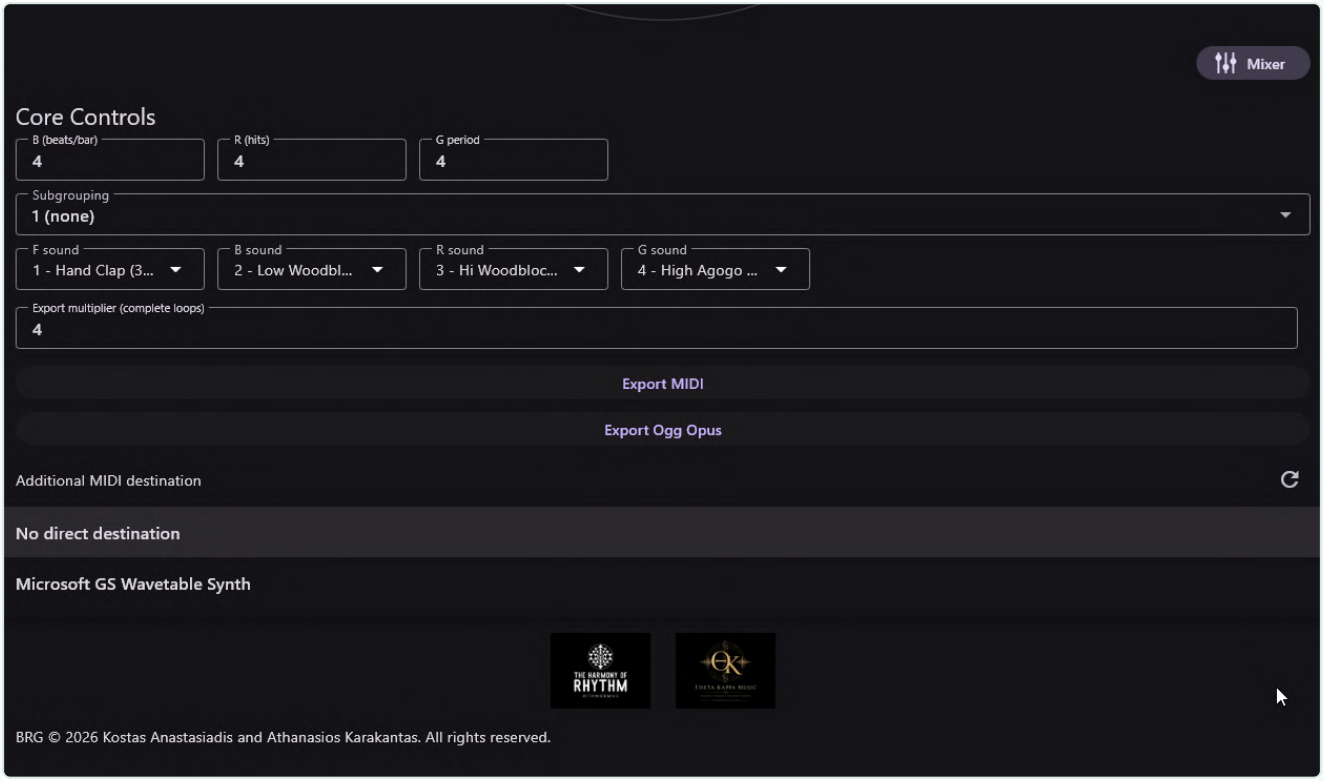


Figure 12.5. Windows live MIDI output controls.

12.7 Timing and network connections

BRG's audio and MIDI events are scheduled against its rhythmic transport. But the timing heard at the receiving end also depends on the operating system, MIDI connection, network bridge, receiving software, and audio hardware.

Development testing found that **direct wired Android and iOS MIDI routes worked**, while the specific mobile RTP-MIDI bridge/Wi-Fi setups tested exhibited substantial jitter and packet loss. That does **not** mean every network MIDI setup is unreliable; it means those tested routes should not be assumed to preserve BRG's timing.

For time-sensitive work, a verified wired connection is a good starting point.

12.8 If no MIDI is received

Check that (1) the destination exists and is selected in BRG; (2) the receiving device or app is connected, armed, and monitoring the correct MIDI input; (3) the selected instrument responds to the transmitted percussion notes; and (4) any necessary network session or virtual bridge is actually connected.

Try a direct wired route when diagnosing network timing or connectivity problems. BRG also sends defensive **all-notes-off** messages when playback stops or a route changes, to reduce stuck notes.

---

13. Exporting MIDI and Audio

13.1 Live playback is not an export

BRG provides two different kinds of export:

- **Export MIDI** saves note events and timing information in a `.mid` file, ready for use with a MIDI instrument, notation program, or DAW.
- **Export Ogg Opus** creates a `.opus` audio file containing BRG's rendered percussion sounds.

These commands work from the currently selected workflow mode. They do not record an arbitrary portion of the running transport: BRG prepares a **finite export** from the relevant rhythmic configuration or arrangement.

13.2 Choosing the export length

The **Export multiplier** specifies how many complete units are written to the output file, from **1 to 256**. Its label follows the current workflow mode:

Mode	What the multiplier repeats
Free	Complete loops
Song	Complete songs
Setlist	Complete setlists
Practice	Complete automation routines

In Song Mode, a song configured to repeat **indefinitely (`0`)** during live playback is exported with **one song pass** before the export multiplier is applied. In Setlist Mode, BRG uses the songs **embedded in the setlist**, including their saved parts and settings; subsequent changes to an original `.brgsong` file do not silently change the exported setlist.

Practice exports cover the routine's automation cycle. The exported practice routine uses the **current live starting values**, together with the routine's saved cadence and automation rules; it does not simply export whatever moment happens to be playing.

13.3 Export MIDI

1. Select the mode and configure the rhythm, song, setlist, or practice routine you want to export.

2. Set the **Export multiplier**.
3. Select **Export MIDI**.
4. In **MIDI export options**, leave the individual layer-note fields blank to use each configuration's stored note assignments, or enter an override.
5. Optionally enable **Split layers into MIDI tracks**.
6. Confirm and choose where to save the `.mid` file.

The export-options fields cover **F, B, R, G, and G on G**. An entered MIDI note value overrides the chosen layer **for that export only**; **0 omits the layer**. Valid entered values are **0–127**.

The file uses **Standard MIDI File Format 1**. When **Split layers into MIDI tracks** is selected, the file has a conductor track and separate rhythmic-layer tracks; otherwise, musical events are combined rather than separated by layer. The separate-tracks option also works in Free Mode.

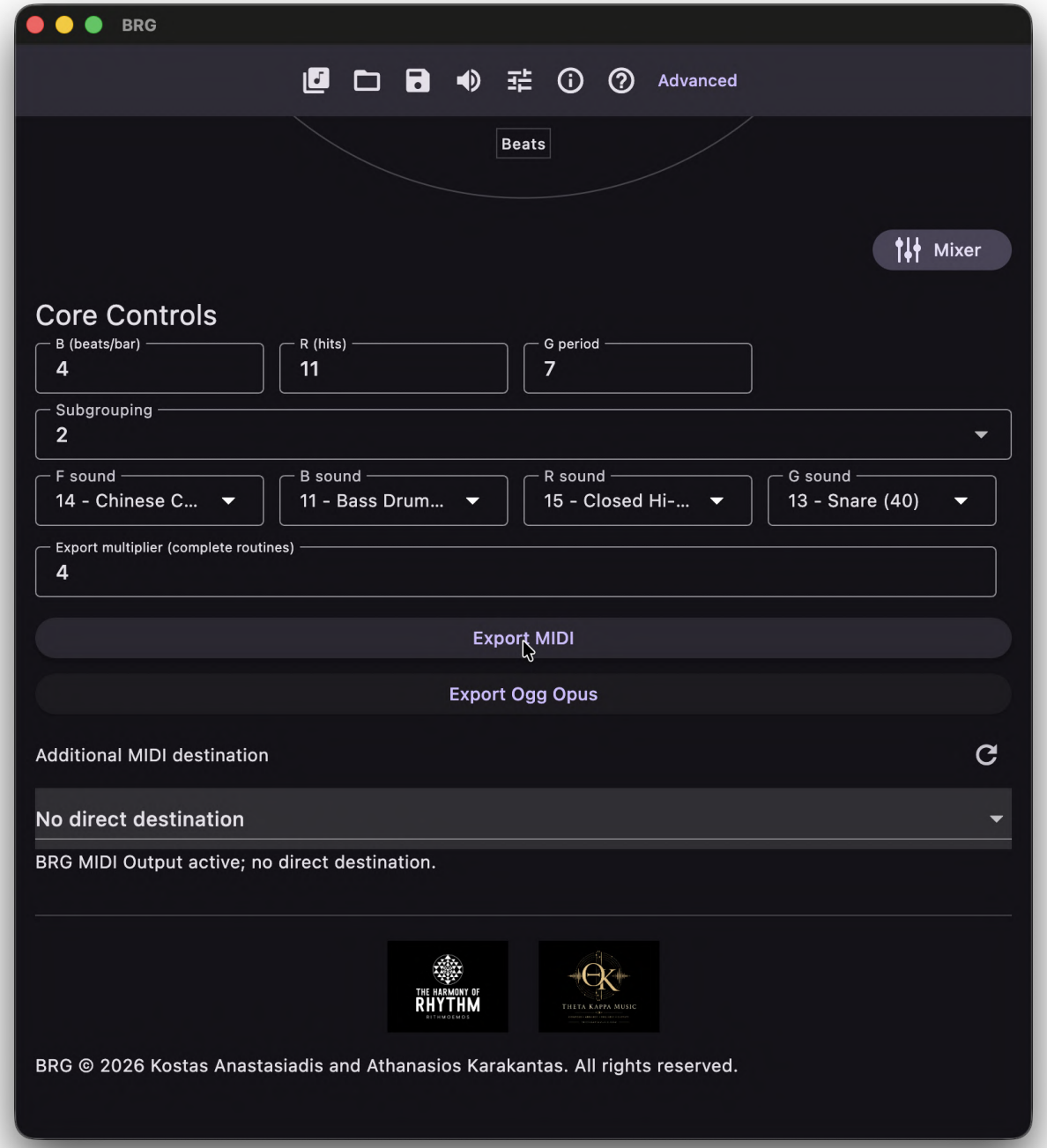


Figure 13.1a. MIDI export controls and per-layer note override dialog — view 1.

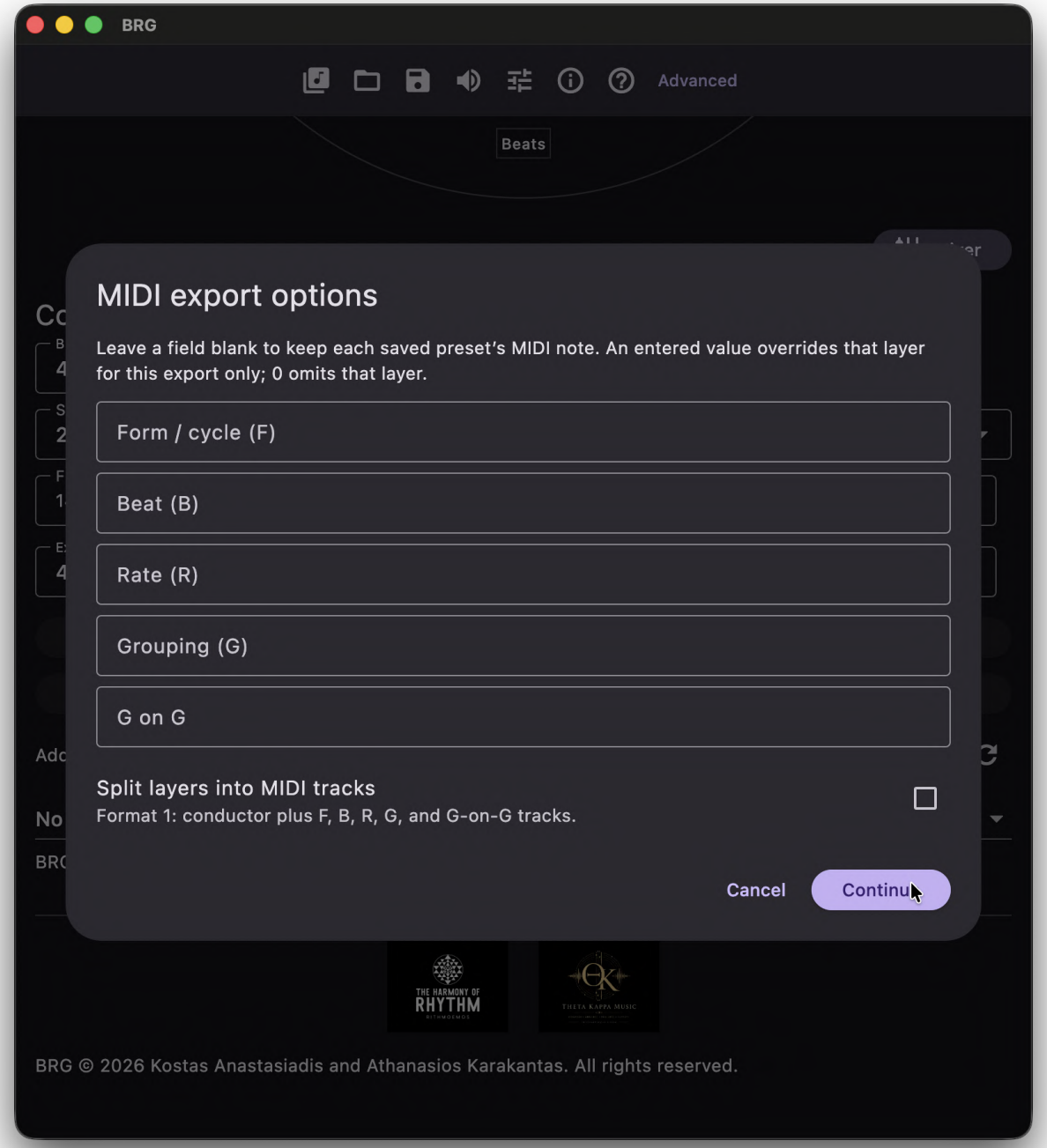


Figure 13.1b. MIDI export controls and per-layer note override dialog — view 2.

13.4 Tempo and time signatures in MIDI export

Song, Setlist, and Practice exports may include sections with different tempos or time signatures. BRG writes the relevant tempo and meter changes into the MIDI conductor track at the appropriate saved boundaries.

When importing the file into a DAW, confirm that the DAW is configured to read the MIDI file's tempo and time-signature information. Different DAWs and import methods may handle that information differently.

13.5 Export Ogg Opus

1. Select and configure the mode to export.
2. Choose the **Export multiplier**.
3. Adjust the intended mix and **Output Boost** as needed.
4. Select **Export Ogg Opus**.
5. Choose the destination for the resulting `.opus` file.

BRG renders the bundled normal and accent samples into an audio file. The rendered mix reflects the relevant stored or current mixer gains, with Output Boost applied after the mix. Unlike MIDI export, the result is **audio**, so it does not require a separate MIDI instrument to be heard.

The current maximum audio-export duration is **four hours**. BRG reports an error when the requested export would exceed this limit.

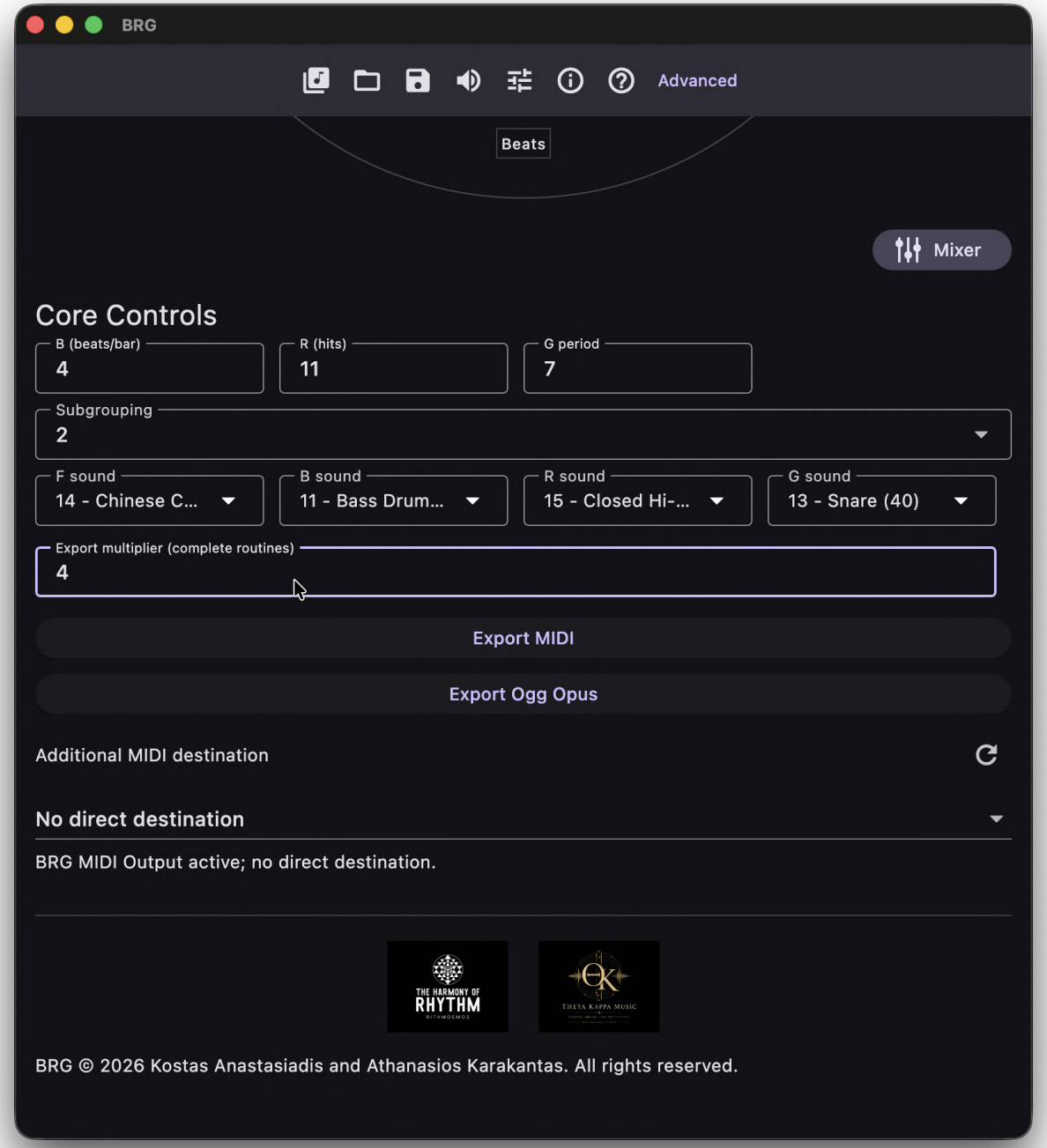


Figure 13.2a. Export controls followed by Windows MIDI and Ogg Opus Save As dialogs — view 1.

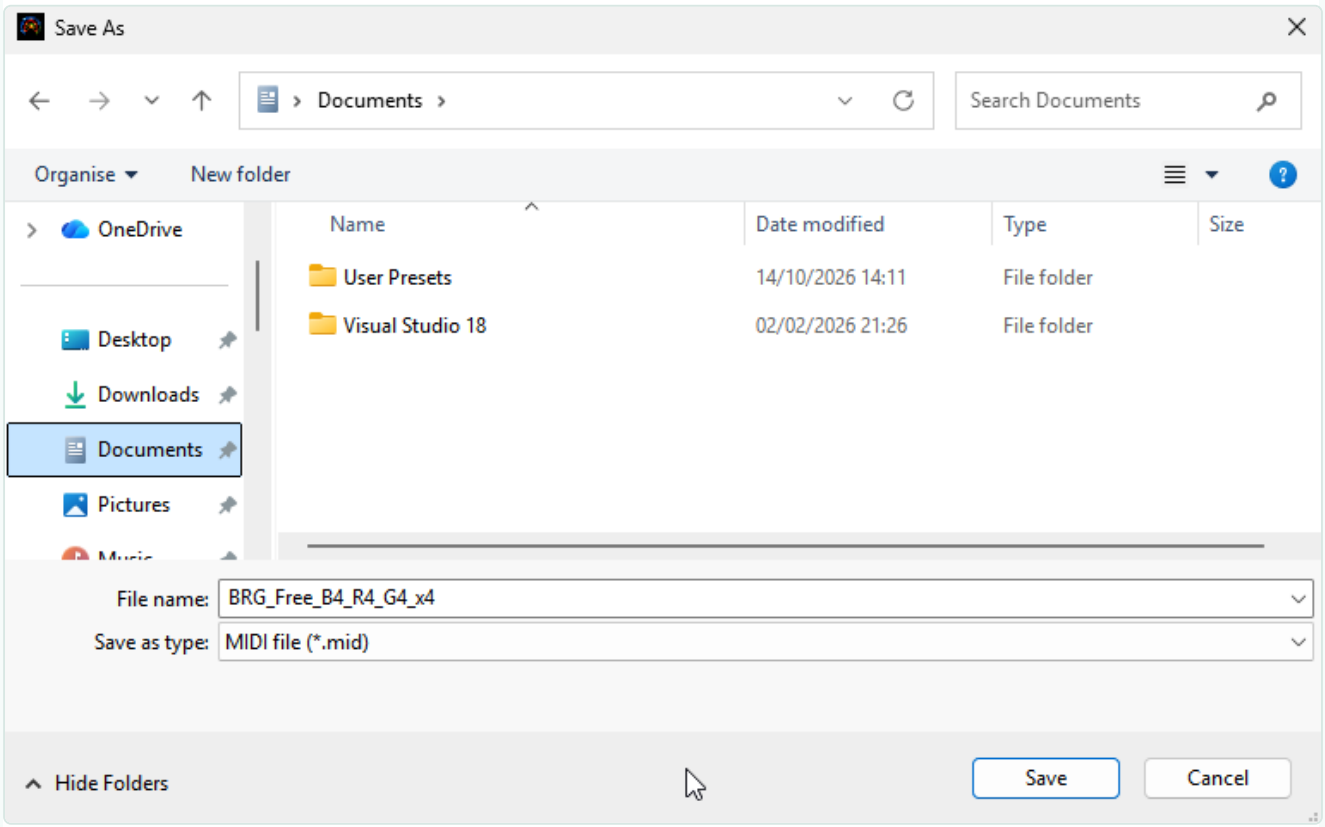


Figure 13.2b. Export controls followed by Windows MIDI and Ogg Opus Save As dialogs — view 2.

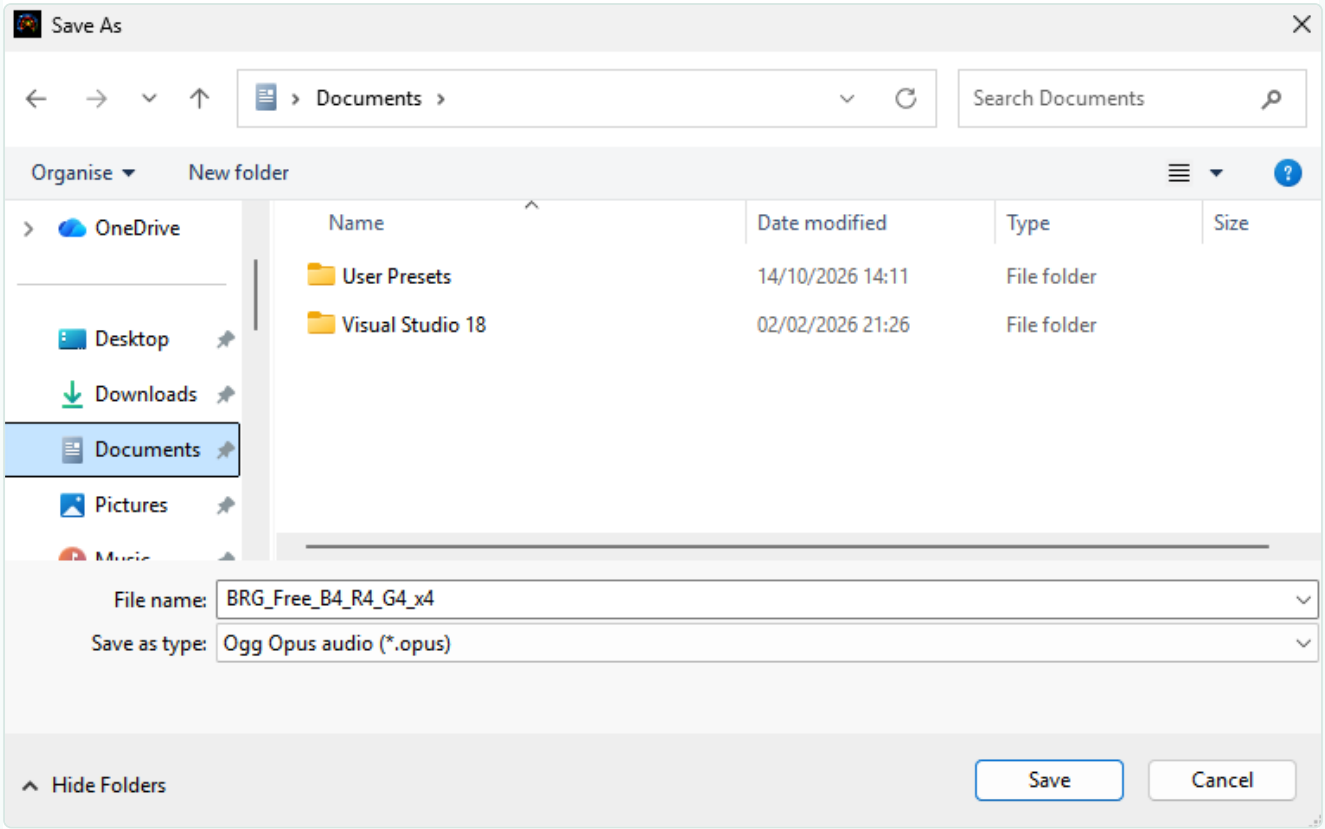


Figure 13.2c. Export controls followed by Windows MIDI and Ogg Opus Save As dialogs — view 3.

13.6 Saved values versus live adjustments

For Song and Setlist exports, BRG uses the applied arrangement's saved snapshots and its defined repetitions/forms. A temporary live Mixer override does **not** rewrite those saved values for export.

Practice export is different in one specific respect: the current starting controls provide the initial values, while the saved rules determine how the routine proceeds. For a reproducible export, check the intended starting values before exporting.

Output Boost is an exception shared across modes: it is session-only but is applied to Ogg Opus rendering. It has no effect on MIDI export.

13.7 MIDI notes and external percussion sounds

BRG's bundled sound bank contains 26 sounds. The first 18 use their existing General MIDI percussion note assignments. The final eight sounds have additional BRG internal identifiers, which are translated to external MIDI note numbers **89–96**.

This translation preserves BRG's internal sample playback but does not require an external MIDI receiver to reproduce those same timbres. You can use the MIDI export note overrides to assign the notes expected by your receiving instrument.

The complete sound-to-note table belongs in **Appendix B**.

13.8 Quick checks before using an export

After exporting MIDI, open it in the intended DAW or MIDI application and check the selected MIDI instrument, tempo map, rhythmic placement, and track layout. After exporting audio, play the `.opus` file and check its duration and balance.

If the two formats sound different, remember that **MIDI plays through the receiving instrument**, while **Ogg Opus uses BRG's own samples**.

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14. Files, Libraries, and Sharing

BRG can save a single rhythmic configuration, arrange configurations into a song, organize songs into a setlist, and store an automated practice routine. Each kind of work has its own file type.

14.1 BRG file types

Extension	Purpose
`.brg`	One saved BRG preset: the rhythmic configuration and its stored settings.
`.brgpack`	A collection of presets that can be transferred or shared together.
`.brgsong`	A song containing an ordered sequence of parts, including their preset snapshots and repetition settings.
`.brgsetlist`	A setlist containing song snapshots in a chosen order.
`.brgpractice`	A practice routine containing a starting preset, automation cadence, and parameter rules.
`.mid`	Exported MIDI performance, for use in MIDI software or hardware.
`.opus`	Exported Ogg Opus audio recording.

The first five formats preserve BRG work for later editing. MIDI and Ogg Opus exports represent a performance of that work; they are not replacements for editable BRG files.

14.2 Working with presets

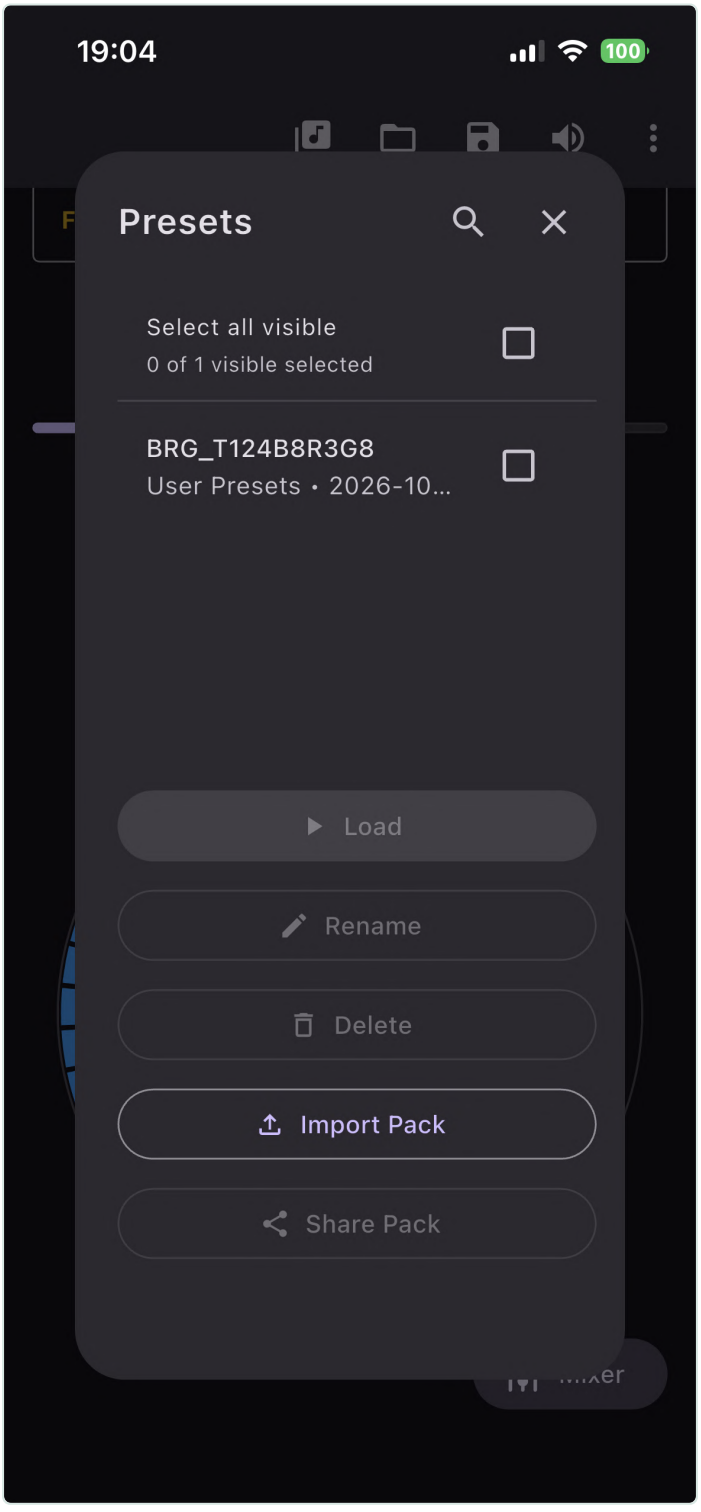


Figure 14.2. Preset manager.

A **preset** is one saved BRG configuration. In Free Mode, the preset library and preset commands let you retrieve previous settings rather than rebuilding them from the beginning.

BRG distinguishes factory presets from presets you create or import. You can select a preset to load it, and use the relevant manager to perform the actions offered for that library, such as renaming or deleting user entries.

A **preset pack** (`.brgpack`) collects multiple presets for sharing or importing together. A pack is not a song: its presets do not acquire a playback order simply because they are included in the same file.

14.3 Songs and the draft

In Song Mode, opening setup shows the **draft**. You can add, edit, duplicate, remove, or reorder parts without immediately replacing the song loaded in the transport. Choose **Apply** to replace the active song with the draft.

Saving a `.brgsong` file stores the song's part data, not merely paths to external preset files. Later changes to the original preset do not silently change the song's embedded parts.

To open Song setup again, re-select **Song Mode** in the mode dropdown.

14.4 Setlists and imported song versions

A `.brgsetlist` contains copies of the songs imported into it. Reordering or duplicating an entry in the setlist does not change the original `.brgsong` file.

If you edit a song separately and want the setlist to use the newer version, **re-import the updated song and explicitly replace the older entry**. A setlist does not automatically synchronize with files outside it.

Re-select **Setlist Mode** in the dropdown to reopen its setup window.

14.5 Practice routines

A `.brgpractice` file stores a complete starting preset together with the routine's automation rules and cadence. Use the Practice Routines manager to load and organize saved routines.

Re-select **Practice Mode** in the dropdown to reopen setup. As with Song Mode, distinguish the settings being edited from what has already been applied to the main playback state.

14.6 Importing, opening, and sharing

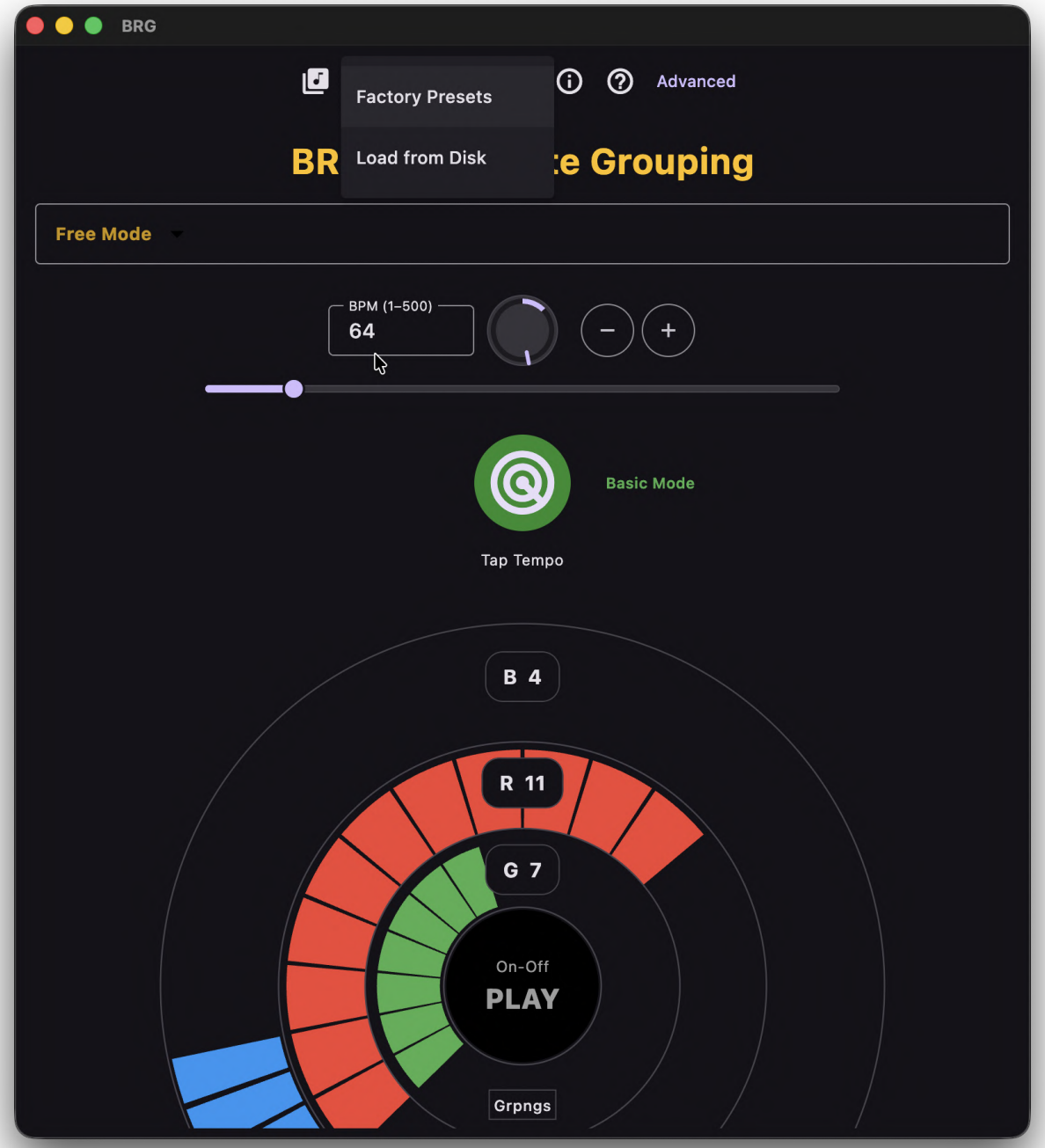


Figure 14.6. Desktop file opening from BRG.

On desktop systems, BRG uses file dialogs for appropriate import, load, save, and export operations. Mobile systems use the application's libraries, native sharing facilities, or **Open With** for supported BRG documents, depending on the file type and action.

When a supported Song, Setlist, or Practice file is opened through the operating system, BRG can direct it to the corresponding mode and setup interface. File associations and share-sheet appearances depend on the device and operating system.

Mobile sharing supports selecting multiple supported files within the application’s documented limits. Song and Practice managers support sharing up to 20 documents at a time; availability of selection controls depends on the current library view.

[**Screenshots needed:** Mobile file sharing; desktop open/save dialog; Open With destination if available.]

14.7 Avoiding accidental replacements

When saving under a name that already exists, read the displayed choices carefully. On mobile, BRG supports conflict choices such as **Cancel**, **Keep both**, and **Overwrite** for the supported saved-item types. Desktop behavior follows the applicable dialog and file operation.

For important work, keep an extra exported BRG-format copy before editing or replacing it. **Deleting an item from a library may not be undoable; keep a separate backup if you might need it later.**

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15. Options, Display, and Shortcuts

Options affect BRG's visual feedback, rhythmic presentation, and day-to-day operation. Some options change the sound of a rhythm; others affect only what appears on screen.

15.1 Opening Options and context help

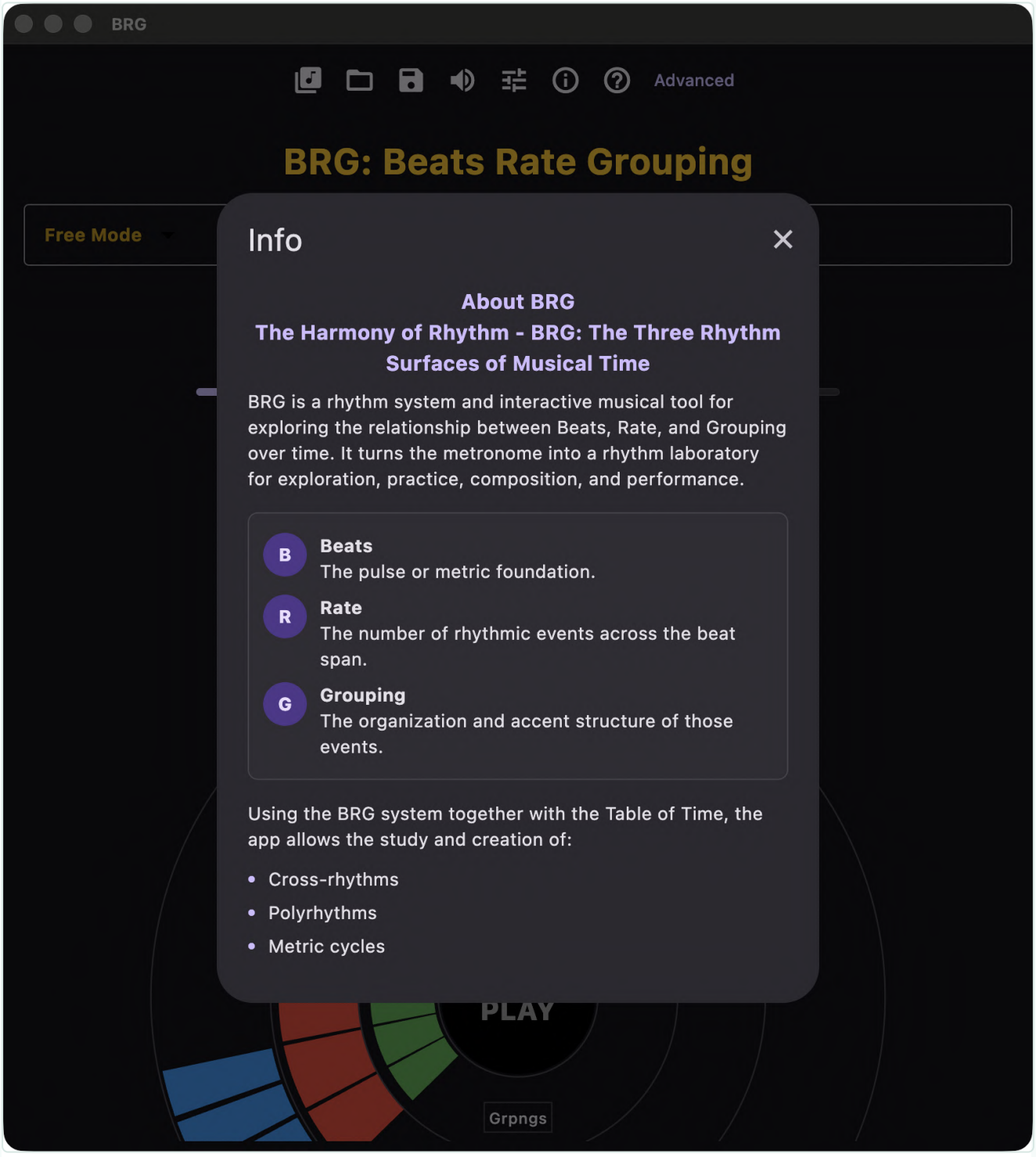


Figure 15.1. Info dialog and current feature summary.

Open **Options** from the main interface. The available controls include display behavior, grouping-related settings, and other application preferences.

Context Help is controlled separately from the app bar / More menu. It is not toggled from inside the Options dialog. When enabled, it displays short explanations for individual controls and is especially useful when exploring Advanced settings or a feature whose effect is not immediately obvious.

15.2 Playback lights

Lights enables or disables visual feedback during playback. The concentric rings can indicate active B, R, and G positions, while optional numerical indicators help show beat and grouping progression.

Lights only on B reduces visual activity to the primary beat and form indications. These are display choices: they do not change the notes generated by BRG.

15.3 Group accents and group-division

Group Accent changes the emphasis of the grouping layer. **Split 3 as 2+1** exposes an additional internal hit in an applicable group-division of three. Subgrouping and custom group-division settings are described in Chapter 7.

These settings affect the rhythmic result and should not be confused with display-only options.

15.4 Basic, Advanced, and Extended B/G range

Basic provides the direct B/R/G controls, while **Advanced** makes further parameters available. **Extended B/G range** permits larger values of B and G without changing the Rate limit for the selected complexity mode.

Switching between Basic and Advanced is disabled during playback. This prevents an active rhythmic configuration from becoming incompatible with the newly selected range.

15.5 Tempo, sound, and playback preferences

BRG provides direct tempo entry, Tap Tempo, and tempo nudging. The effective nudge and display settings depend on the options chosen. Sound selections and the mixer are explained in Chapters 5 and 11.

Remember that **Mute**, individual mixer **Mute/Solo**, and the external MIDI destination are different controls: muting the internal audio does not by itself mean MIDI messages cannot be sent.

15.6 Desktop keyboard shortcuts

The following entries appear in BRG's current desktop Info dialog and are supported by its shortcut mappings. Shortcuts may be unavailable while a dialog, editable field, or playback state is consuming input.

Shortcut	Action
`Space`	Play / Stop
`M`	Mute / Unmute
`O`	Open Options
`I`	Open Info
`H`	Toggle Context Help
`A`	Toggle Advanced / Basic
`E`	Toggle Extended B/G range
`T`	Tap Tempo
`↑` / `↓`	Nudge tempo up / down
`Cmd/Ctrl + O`	Load for the active mode
`Cmd/Ctrl + S`	Save for the active mode
`L`	Toggle lights
`G`	Toggle Group Accent
`/`	Toggle Split 3 as 2+1
`F`	Free Mode
`S`	Song Mode
`Shift + S`	Setlist Mode
`P`	Practice Mode
`Shift + M`	Open Mixer window
`Cmd/Ctrl + E`	Open Song / Setlist / Practice setup
`X`	Export MIDI
`Shift + X`	Export Ogg Opus

Re-selecting the current mode in the dropdown is another way to open the setup window for **Song**, **Setlist**, or **Practice**.

---

16. Troubleshooting and Frequently Asked Questions

Most unexpected behavior can be traced to the current workflow mode, the state of playback, the mixer, the selected MIDI destination, or the kind of file being opened.

16.1 I press Play, but hear no sound

Check the main audio mute state first. Then open the Mixer and check **Master**, the relevant layer volumes, and **Mute/Solo** settings. If a sound is set to **No sound**, that layer will not produce an audible sample. Confirm that at least one audible event is present in the configuration.

Finally, check the device's system output and volume. A MIDI destination alone is not an audio-output selection.

16.2 My rhythm is playing, but the displayed B/R/G values differ

In **Free Mode**, B/R/G edits made during playback can change the displayed values without changing the currently playing rhythm. The new configuration is applied after stopping and starting again.

To discard an accidental change, select the **B**, **R**, or **G** value label inside its ring to restore the value currently used by playback. This behavior is also explained in Chapter 5.

16.3 Why can't I change Basic/Advanced while playing?

BRG blocks this switch during playback to protect the active configuration and its valid parameter ranges. Stop playback before switching between the two control sets.

16.4 Why does a Song edit not affect playback immediately?

Song setup contains a **draft**. The main UI and transport continue to hold the previously applied version until you choose **Apply**. This lets you make changes without unexpectedly replacing the loaded performance.

16.5 Why doesn't my Setlist include a song I recently edited?

The Setlist stores an **embedded snapshot** of the song. Re-import the newer `.brgsong` version and replace the older Setlist entry explicitly.

16.6 Why do Practice Mode edits behave differently during playback?

Practice Mode follows a scheduled automation plan. Changes to **non-automated parameters** can remain displayed and take effect after playback stops. For an **automated parameter**, a manual UI edit remains displayed only until the next scheduled automation boundary, where the scheduled value is applied.

If playback is stopped **before** that boundary, the manually entered value becomes the new starting value for the automation. These distinctions are covered in Chapter 10.

16.7 I can see a MIDI destination, but the receiver gets nothing

Check that the correct destination has been **selected**, that it remains available, and that the receiving device or application is configured to accept the MIDI messages. Discovery or listing a device is not the same as establishing the required route or session.

For network MIDI, a separate operating-system session or compatible connection application may be required. The precise procedure differs between macOS, iOS, Android, and Windows; see Chapter 12. Test a direct or local MIDI destination first when possible, so network behavior does not complicate diagnosis.

16.8 I muted the audio, but MIDI still arrives

That can be expected. Internal audio and live MIDI output are independent routes. To stop live MIDI transmission, stop playback or disable/change the MIDI route as appropriate. **Mixer settings do not change the velocities of MIDI notes sent to a live MIDI output destination.**

MIDI-file export works differently: layer fader levels affect exported note velocities, and notes from a layer whose mixer fader is set to **0** are omitted from the exported MIDI file. This does not change the messages sent to live MIDI destinations.

16.9 An exported MIDI file sounds different from BRG

MIDI contains note and timing information, not BRG's actual sample recordings. The sound therefore depends on the destination's instruments and note mapping. Check the MIDI note assignments and the receiver's percussion bank. Use **Ogg Opus export** when you want a recording of BRG's rendered audio rather than an editable MIDI performance.

16.10 Why is an indefinite song or routine export finite?

A saved export must have an ending. BRG converts indefinite live playback into a finite performance for export according to the mode's export rules, then applies the export settings. Chapter 13 explains these rules in more detail.

16.11 I cannot open a file

Check the extension and choose the matching workflow or manager: a `.brg` preset is not a `.brgsong`, and a `.brgsetlist` is not a MIDI file. If you received the file from another device, verify that the copy completed and that it was not renamed with the wrong extension.

On mobile, use the supported **Open With** or in-app import path. On desktop, use the corresponding load command. Unsupported or malformed files may produce an error rather than loading partially.

16.12 The exported audio is distorted

Check the Mixer and **Output Boost**. Raising multiple layer gains, especially with Output Boost, can exceed the available headroom. Lower the Master or layer levels and export again. Output Boost affects the rendered audio, not MIDI note velocity in the same way.

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17. Musical Applications and Ideas

This chapter offers examples of what BRG can represent. They are **illustrations**, not prescribed practice routines. You can start with a basic configuration and explore the same relationships further through grouping, form, composition, or automation.

17.1 One configuration: B = 4, R = 3, G = 4

Set **B = 4** for a four-beat cycle, **R = 3** for three equally spaced rate notes per beat, and **G = 4** for a grouping accent every four rate notes.

There are twelve rate notes across the four beats. Grouping them in fours gives **three groups across four beats**: a 3-over-4 relationship. The grouping accents move independently of the beat accents while the cycle remains coherent.

> The spoken syllable pattern introduced in Chapter 2 can be useful as a reference: *Takiti taKiti takiTi takiti*.

17.2 Change G while keeping B and R

Leave B and R unchanged and choose a different G. You retain the same beat cycle and rate pulse, but change how the rate events are clustered. This highlights the distinction between **subdividing beats** (R) and **grouping rate notes** (G).

17.3 Use group-division within G

Subgrouping adds internal group-division without redefining Rate. For a Grouping of seven, a custom pattern such as `2 + 2 + 3` organizes the seven rate notes into smaller units while the overall G span stays seven notes.

The custom editor also accepts repeated terms, such as `2*2 + 3`. The sum of the terms must equal G. Chapter 7 explains the accepted syntax and related accent options.

17.4 Displace the grouping

In Advanced Mode, move **G displacement** away from zero while keeping B, R, and G unchanged. The frequency and grouping size remain the same, but the grouping accents shift to different positions against the beat.

G on G adds a further grouping layer: a secondary accent after a selected number of G groups. Its displacement can shift this layer separately.

17.5 Explore Form without confusing it with B

When F is set in complete forms, the BRG cycle continues unchanged and the form accent appears after the chosen number of cycles. For example, **F = 2 forms** produces a form accent every two complete BRG cycles.

When F is set in beats and its beat count is not divisible by B, the larger form ends at the selected beat count and starts again, cutting across the B-length cycle while leaving the underlying BRG structure defined by the same B/R/G values.

17.6 From one configuration to a Song

Free Mode describes one configuration. In **Song Mode**, several configurations can become parts of a longer structure. You can assign each part its own settings and number of forms, then choose how often the complete song repeats.

The **draft** allows the structure to be edited separately. Selecting **Apply** makes it the active song used by the transport.

17.7 From Songs to a Setlist

Setlist Mode arranges saved songs for longer sequences. It is useful when a collection of distinct compositions or studies should remain available in a deliberate order. Because each entry contains a song snapshot, the setlist remains reproducible even if an original song file later changes.

17.8 Systematic variation in Practice Mode

Practice Mode automates selected parameter changes at configured form boundaries. Rather than storing multiple nearly identical presets, you can describe how a value changes from one stage to the next. Its automation plan and live-edit behavior are documented in Chapter 10.

Appendices

Appendix A — Parameter reference

Parameter	Meaning	Confirmed limits / notes
B — Beats	Number of quarter-note beats in the BRG cycle	Basic max **32**; Advanced max **128**; Extended range max **512**
R — Rate	Number of evenly spaced rate notes per beat	Basic max **16**; Advanced max **64**; not extended by Extended B/G range
G — Grouping	Number of rate notes between grouping accents	Basic max **16**; Advanced max **64**; Extended range max **128**
F — Form	Form span in complete BRG cycles or, when configured, beats	Its relationship to B depends on the selected unit; see Chapter 6
Rdiv	Spreading/division control for the Rate layer	Advanced; exact current bounds and UI units: **Needs verification**
G displacement	Shift of grouping accents	Advanced; bounds depend on G; **Needs verification** for exact UI limits
G on G	Secondary grouping layer across G groups	Advanced; exact dynamic limits: **Needs verification**
G on G displacement	Offset of the secondary grouping layer	Advanced; exact dynamic limits: **Needs verification**
Custom subgrouping	Internal **group-division** of G	Positive integer parts must sum to G; up to 128 expanded subgroups in the documented implementation
Tempo	Beats per minute	Supports four-decimal precision; current exact permitted range: **Needs final UI verification**

Technical reference: The core tick resolution is **27,720 PPQN**. This is an internal MIDI/timing representation, not a user-adjustable musical parameter.

Appendix B — Bundled sounds and exported MIDI note numbers

The bundled bank contains **26 playable sounds**, plus **0 — No sound**. In the standard mapping below, notes 1–18 use the displayed GM-style percussion note values. The eight additional sounds use separate exported note numbers.

Sound	Name	MIDI note
0	No sound	—
1	Hand Clap	39
2	Low Woodblock	77
3	Hi Woodblock	76
4	High Agogo	67
5	Claves	75
6	Cowbell	56
7	Low Conga	64
8	High Conga	63
9	Mute Conga	62
10	Low Agogo	68
11	Bass Drum	36
12	Side Stick	37
13	Snare	40
14	Chinese Cymbal	52
15	Closed Hi-Hat	42
16	Open Hi-Hat	46
17	Ride	51
18	Ride Bell	53
19	Tabla Low	89
20	Tabla High	90
21	Tabla Low & High	91
22	Tabla Mid & High	92
23	Tabla Low Mute	93
24	Tabla High Mute	94
25	Darbuka	95
26	Darbuka Slap	96

Important: A MIDI receiver needs a suitable percussion instrument or a custom mapping to reproduce the intended sound. Export note overrides may change these defaults. This list is derived from `lib/core/bundled_sounds.dart`; compare it with any custom per-layer MIDI overrides when testing.

Appendix C — Keyboard shortcuts

The verified source-based **desktop shortcut table is in Section 15.6**. Use that table as the single reference when producing a formatted quick-reference page, rather than maintaining two copies that could drift out of sync.

Appendix D — File and export quick reference

Task	Format	Editable in BRG later?
Save one configuration	`.brg`	Yes
Share a collection of presets	`.brgpack`	Yes, after import
Save a multi-part song	`.brgsong`	Yes
Save an ordered collection of songs	`.brgsetlist`	Yes
Save an automated practice routine	`.brgpractice`	Yes
Move notes/timing to another MIDI application	`.mid`	Not as a BRG project file
Save rendered audio for listening/sharing	`.opus`	Not as a BRG project file

MIDI export preserves performance events in MIDI form. Audio export renders the chosen performance as sound. The precise duration of an export follows the active mode's finite export rules, even when live transport is set to repeat indefinitely.

Appendix E — Glossary and credits

Beats (B): Number of beats forming one BRG cycle.
Rate (R): Evenly distributed rate notes within a beat; subdivisions or n-tuplets.
Grouping (G): Grouping of rate notes, with an accent or replacement at the grouping boundary.
Subdivision: Division of the beat into rate notes; use this term for R.
Subgrouping / group-division: Internal organization of a G group into smaller groups.
Form (F): Larger recurrence marked across complete cycles or a selected count of beats.
G on G: An additional grouping layer that accents after a selected number of G groups.
Preset: One stored BRG configuration.
Draft: Editable Song or other mode setup that has not yet been applied to the main playback state.
Snapshot: A self-contained saved copy of a preset or song embedded in a higher-level BRG file.
Transport: Controls for starting, stopping, pausing, resuming, and navigating playback.
Ogg Opus: Compressed audio export format used by BRG.

Concept: Kostas Anastasiadis, *The Harmony of Rhythm*.
Software development: Thanos Karakantas / Theta Kappa Music.

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