



# ORB COMPOSER

Documentation

1.0.0

Last Update : 04/02/2018, Richard Portelli

Special Thanks to George Napier for the review





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# Main Composition Settings

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# Main Composition Settings



4 'magic' buttons  
for the entire  
composition

Midi Player

Default BPM, Tonality and Time  
Signature values for every **new**  
block item you create.  
*Note: These are **NOT** the  
settings for the whole  
composition. These apply **only** to  
future blocks!*

Midi  
Indicator

Show curves



Articulation  Role  Dynamics  Rhythm  Port-Channel

00:00:00.000  
Seconds



60  
Bpm

C Major

4/4



MIDI

Shows  
or hides the  
Block Parameter  
Curves

Check the boxes according  
to the clip parameter  
information you want to  
display on all the clips

Activate to loop  
over the full  
composition

Midi panic button to  
send an 'All Notes Off'  
message.  
*Use **ONLY** if a note is  
frozen in the DAW!*





# Left Menu Tabs



# Left Menu Tabs

## General

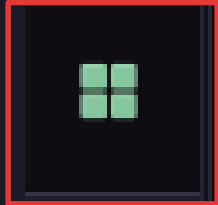


|  |   |                        |
|--|---|------------------------|
|  | → | Block Items tab        |
|  | → | Bar Items tab          |
|  | → | Chord Progressions tab |
|  | → | Chords tab             |
|  | → | Instruments tab        |



# Left Menu Tabs

## Block Items Overview and Organization



### Block Items

- Block items represent a chunk of music with a certain unity in the parameters, tonality, instruments, chords, curves, BPM, etc.
- Block items are organized in 4 categories :
  - Intro
  - Theme and variations
  - Transitions
  - Endings



# Left Menu Tabs

## Block Items Defined



INTRO

- Intro → Intro usually without melody
- Melodic Intro → Intro with a melody
- Theme Intro → Theme Intro copies all of the clips of the following Theme *except* the melody

THEME

- Theme → Theme is the main Orb Composer element with a melody
- Theme (copy) → Strict copy of a Theme
- Theme (var)
- Theme (changes melody)
- Theme (more intense)
- Theme (less intense)
- Theme (even more intense)
- Theme (even less intense)

Theme variations with different intensity curves settings and / or with different algorithms



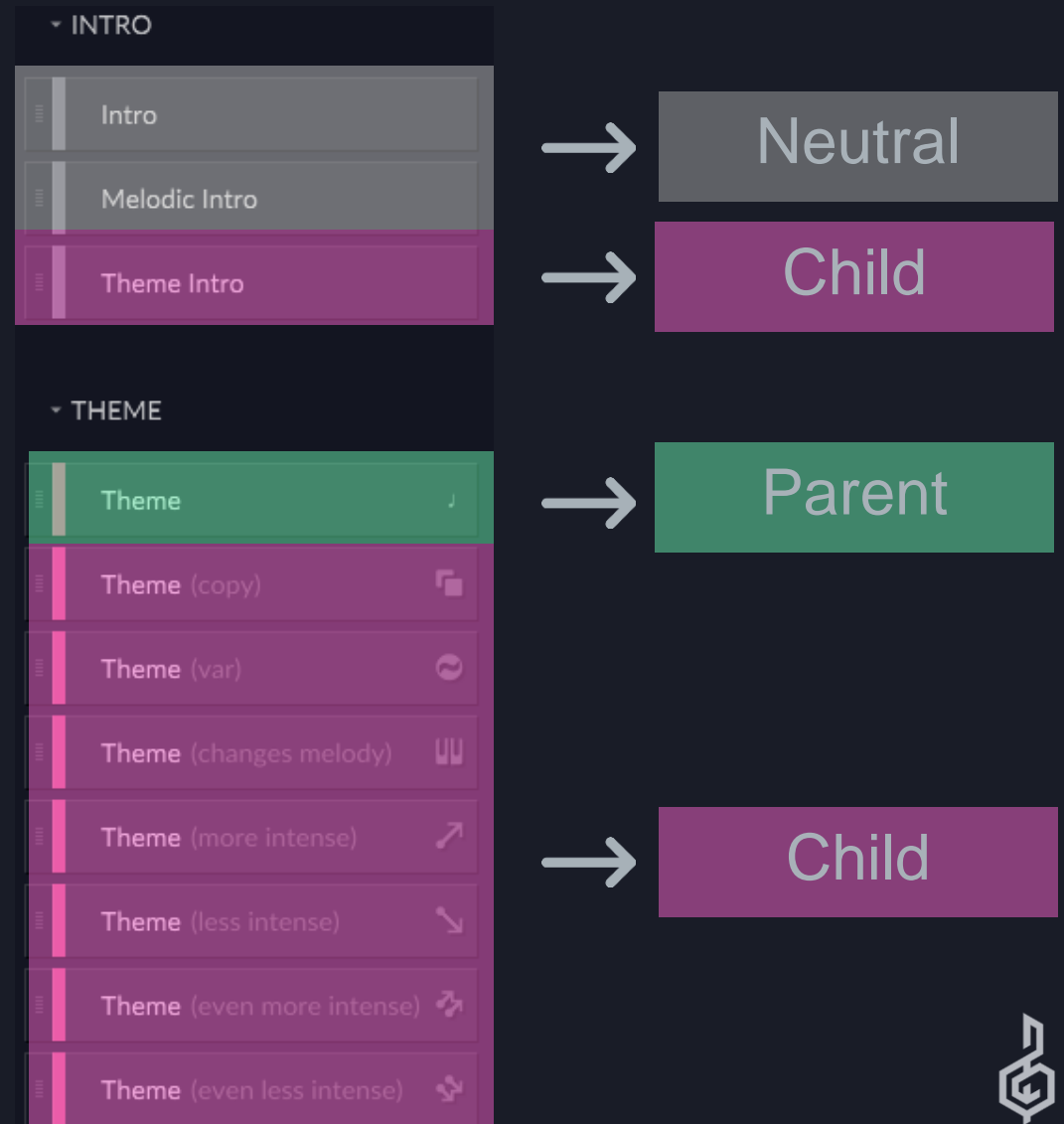
# Left Menu Tabs

## Block Items Parents / Children



### Parents / Children / Neutral

- A parent Block is usually a **Theme**. (except for **Transition** or **End**)
- A child is another Block which has a dependence on a parent block.
- For example : **Theme Copy** copies a **Theme** Block.
- Any change in the **Theme** is applied in the **Theme Copy** unless you edit the **Theme Copy**.
- Some Block Types such as **Intro**, **Melodic Intro** or **Melodic Ends** can't be either parents or children, they are fully neutral.





# Left Menu Tabs

## Bar Items Overview and Structure

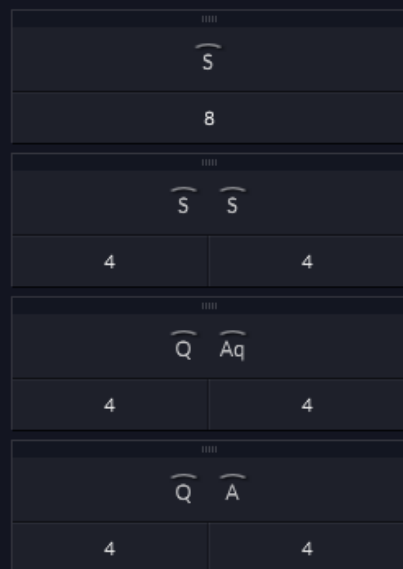


### Bar Items

- Bar items represent the bar structure of a block.

Number of bars

You can select up to 16 Bars per block



Each capital letter (Q, Aq, S, A') represents a musical sentence.

**Q:** Question sentence

**A:** Answer sentence

**Aq:** Answer based on question

**A':** New Answer

**S:** Standard sentence (more 'impersonal')



# Left Menu Tabs

## Chord Progressions



## Chord Progressions

- You can use the chord progressions provided, or create your own and assign a « mood » tag for them with the tags provided.
- A user chord progression will be transposed as required for different tonalities.

■ Native ■ User [Create New](#)

Key  Chords

Cinematic ▾

🔍 Search...

▼ NATIVE

▶ Protagonism  
C > D

▶ Protagonism  
C > D > C > D

▶ Protagonism  
C > C > D > D

▶ **Fantastical**  
C > Ab

▶ Fantastical  
C > Ab > C > Ab



# Left Menu Tabs

## Chord Progressions (User)



### Create your chord progressions

- Click on « Create new » to create four chord progressions at a time (up to a total of eight chords)

Native  User

Key  Chords



Create New Progression

Chords

Chord

C  
Cm  
C°  
C+  
C7  
CM7  
Cm7  
C°7  
CØ  
C9  
Cb9  
CM9  
Cm9  
Csus2  
Csus4  
Cadd2  
Cmadd2  
Cadd4  
Cmadd4

Chord Progression Name  
Enter Progression Name

Chord Progression (drag chords to the field)

Chord Progression Name  
Enter Progression Name

Chord Progression (drag chords to the field)

Chord Progression Name  
Enter Progression Name

Chord Progression (drag chords to the field)

Chord Progression Name  
Enter Progression Name

Chord Progression (drag chords to the field)

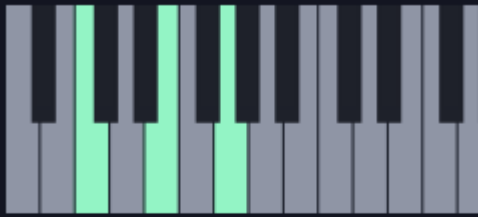


# Left Menu Tabs

## Provided Chords



Chord




**Artist Version**

- C
- Cm**
- C°
- C+
- C7**
- C7
- CM7
- Cm7
- C°7
- CØ

- C9
- Cb9
- CM9
- Cm9
- Csus2
- Csus4
- Cadd2
- Cmadd2
- Cadd4
- Cmadd4
- C+7
- C+M7

- CmM7
- C7b5
- C+9
- C+M9
- C°9
- C°b9
- CØ9
- CØb9
- CmM9
- Csusb2
- Csus+4
- C7sus2
- C7sus4

- C9sus4
- Cb9sus4
- Caddb2
- Cmaddb2
- Cadd+4
- Cmadd+4
- C7add2
- C7add4
- C9add4
- Cb9add4



# Left Menu Tabs

## Instruments



The screenshot displays a software interface with a dark theme. On the left, a vertical sidebar contains several icons, with the 'Instruments' icon (a keyboard) highlighted by a red box. The main area is divided into three columns of instrument categories:

- KEYBOARDS:** Piano1, Piano2, Piano3, Piano4, Celesta1, Celesta2, Celesta3, Celesta4.
- PLUCKED:** Harp1, Harp2, Guitar1, Guitar2, Bassguitar1, Bassguitar2.
- LEADS:** Lead1, Lead2, Lead3.

Below the LEADS section, there are three more categories:

- SYNTH:** Synth1, Synth2.
- BASS ELECTRO:** BassElectro1, BassElectro2.
- PADS:** Pad1, Pad2.



# Left Menu Tabs

## Instruments (continued)



The screenshot displays a software interface with a left-hand menu and four columns of instrument categories. The 'Instruments' tab in the left menu is highlighted with a red box. The instrument categories are as follows:

- SYNTH HARDWARE**
  - Minilogue 1
  - Minilogue 2
  - Minilogue 3
  - Minilogue 4
  - Monologue 1
  - Monologue 2**
  - Arturia Minibrute 1
  - Arturia Minibrute 2
  - Arturia Minibrute 3
  - DSI Prophet 12
  - DSI Prophet REV2
  - Synth 12
  - Synth 13
  - Synth 14
  - Synth 15
  - Synth 16
- DRUM\_KIT**
  - Generic Drum Kit
  - Generic Drum Kit Extended
  - DRUMS**
    - Acoustic Bass Drum
    - Bass Drum 1
    - Side Stick
    - Acoustic Snare
    - Hand Clap
    - Electric Snare
    - Low Floor Tom
    - Closed Hi Hat
    - High Floor Tom
    - Pedal Hi-Hat
    - Low Tom
- Open Hi-Hat**
- Low-Mid Tom**
- Hi-Mid Tom**
- Crash Cymbal 1**
- High Tom**
- Ride Cymbal 1**
- Chinese Cymbal**
- Ride Bell**
- Tambourine**
- Splash Cymbal**
- Cowbell**
- Crash Cymbal 2**
- Vibraslap**
- Ride Cymbal 2**
- Hi Bongo**
- Low Bongo**

- Mute Hi Conga**
- Open HI Conga**
- Low Conga**
- High Timbale**
- Low Timbale**
- High Agogo**
- Low Agogo**
- Cabasa**
- Maracas**
- Short Whistle**
- Long Whistle**
- Short Guiro**
- Long Guiro**
- Claves**
- Hi Wood Block**
- Low Wood Block**
- Mute Cuica**
- Open Cuica**
- Mute Triangle**
- Open Triangle**


# Left Menu Tabs

## Instruments (continued)



▼ PERCU

- Subhit1
- Subhit2
- Lowhit1
- Lowhit2
- Midhit1
- Midhit2
- Highhit1
- Highhit2

▼ FX

- FX1
- FX2
- FX1
- FX2

▼ VOICES

- Voice Female 1
- Voice Female 2
- Voice Male 1
- Voice Male 2
- Voice Child 1
- Voice Child 2

▼ CHOIR

- Choir Female Soprano
- Choir Female Mezzo
- Choir Female Alto
- Choir Male Tenor
- Choir Male Baritone
- Choir Male Bass
- Choir Children
- Choir Girls
- Choir Boys



# Left Menu Tabs

## Instruments (PRO Version)



The interface displays a list of instruments categorized into four main groups. The 'Instruments' tab is highlighted in the left sidebar. The 'WOODWINDS' category includes Piccolo, Flute, Alto Flute, Bass Flute, Oboe, Cor Anglais, Clarinet, Bass Clarinet, Contrabass Clarinet, Bassoon, and Contrabassoon. The 'BRASS' category includes Trumpets, Horns, Trombones, Bass Trombone, Contrabass Trombone, Cimbasso, Tuba, and Contrabass Tuba. The 'STRINGS' category includes Violins I, Violins II, Viola, Celli, and Double Bass. The 'ORCHESTRAL SOLOS' category includes Vir. Solo Violin and Vir. Solo Cello. The 'ORCHESTRAL PERCUSSIONS' category includes Timpani, Triangle, Cymbals, Bassdrum, Snaredrum, Tenordrum, Tambourine, Castanets, Gong, Tubular Bells, Glockenspiel, and Xylophone.

| Category               | Instrument          |
|------------------------|---------------------|
| WOODWINDS              | Piccolo             |
|                        | Flute               |
|                        | Alto Flute          |
|                        | Bass Flute          |
|                        | Oboe                |
|                        | Cor Anglais         |
|                        | Clarinet            |
|                        | Bass Clarinet       |
|                        | Contrabass Clarinet |
|                        | Bassoon             |
|                        | Contrabassoon       |
| BRASS                  | Trumpets            |
|                        | Horns               |
|                        | Trombones           |
|                        | Bass Trombone       |
|                        | Contrabass Trombone |
|                        | Cimbasso            |
|                        | Tuba                |
|                        | Contrabass Tuba     |
| STRINGS                | Violins I           |
|                        | Violins II          |
|                        | Viola               |
|                        | Celli               |
|                        | Double Bass         |
| ORCHESTRAL_SOLOS       | Vir. Solo Violin    |
|                        | Vir. Solo Cello     |
| ORCHESTRAL PERCUSSIONS | Timpani             |
|                        | Triangle            |
|                        | Cymbals             |
|                        | Bassdrum            |
|                        | Snaredrum           |
|                        | Tenordrum           |
|                        | Tambourine          |
|                        | Castanets           |
|                        | Gong                |
|                        | Tubular Bells       |
| Glockenspiel           |                     |
| Xylophone              |                     |







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# Block Parameters

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# Block Parameters

## General



Tonality / Mode      Time Signature      Import Midi Melody

BPM      1   2   3   4   5

Infos

|                |       |     |     |     |     |     |     |     |
|----------------|-------|-----|-----|-----|-----|-----|-----|-----|
| Block name     | Theme |     |     |     |     |     |     |     |
| Block type     | Q Aq  |     |     |     |     |     |     |     |
| Chords         | C     | Dm  | Am  | F   | C   | F   | Am  | G   |
| Time signature | 4/4   | 4/4 | 4/4 | 4/4 | 4/4 | 4/4 | 4/4 | 4/4 |

Structure

Bar Item / Structure

Chords

Bar Time Signatures

- 1 Creates a new melody
- 2 Creates instruments & notes
- 3 Creates chords
- 4 Creates notes
- 5 Creates or recreates everything in nos. 1, 2, 3, and 4



# Block Parameters (Time Signatures)



## Time Signatures



# Block Parameters (Tonality / Modes)



## Tonality / Modes

| Key | Mode       |
|-----|------------|
| C   | Major      |
| C#  | Minor      |
| D   |            |
| D#  | Ionian     |
| E   | Dorian     |
| F   |            |
| F#  | Phrygian   |
| G   | Lydian     |
| G#  | Mixolydian |
| A   |            |
| A#  | Aeolian    |
| B   | Locrian    |

Artist Version



# Block Parameters

## Curves



- **Intensity:** A mix of instrument choices and dynamics. (Applies to the Orchestral template only.)
- **Momentum:** Affects the number of horizontal notes per bar. Basically, the higher the momentum, the more horizontal notes in the block clips. Note that Orb determines the momentum for each clip, but you can modify it. (See ‘Clip Parameter’ Section.)
- **Space (Pro & Orchestral versions):** Affects the number of simultaneous instruments.



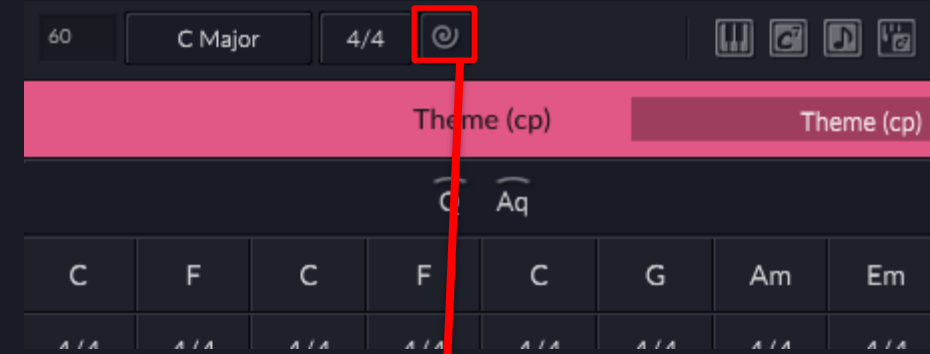
# Block Parameters

## General Behavior Changes: Blocks



### Block Type changes:

- Blocks (e.g., Theme Copy, Theme More Intense, Theme Less Intense, Intro Theme, etc.) that have a **Theme parent block** can be automatically transformed by Orb into another Block Type if an action is performed on them.



- For example a simple Theme Copy will strictly copy a Theme.
- For that, drag and drop a Theme Copy after a Theme and it will parent by default the last Theme.
- If you want to Copy another Theme (which is not the last Theme), you can use the parent icon located on the header of the Theme variations blocks.
- However, once you start editing the Theme Copy, Orb will transform it in an independent Theme Block.



# Block Parameters

## General Behavior Changes: Chords



### Chord changes:

- Changing a chord automatically changes the content of the block and the children blocks. In this first release, it will **not** change user melody inputs. (We anticipate adding the ability to propose chords based on user input in a future update.)



# Block Parameters

## General Behavior Changes: Melody and Time Signatures



### Melody Behavior:

- It is difficult to adapt a melody when chords are changed because what the user's intent and what he or she would choose to retain (rhythms, intervals, passing notes, etc.) is not obvious.
- Therefore, when a bar chord or a tonality is changed, all clips in various roles (*except* the melody) will adapt.
- Because we want Orb Composer to be very fluid we made the decision to recreate a melody when a chord is changed.

### Time Signature Changes

- When a time signature block is changed, all of the notes are recreated but the chords and the instruments already present remain.







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# Clip Parameters

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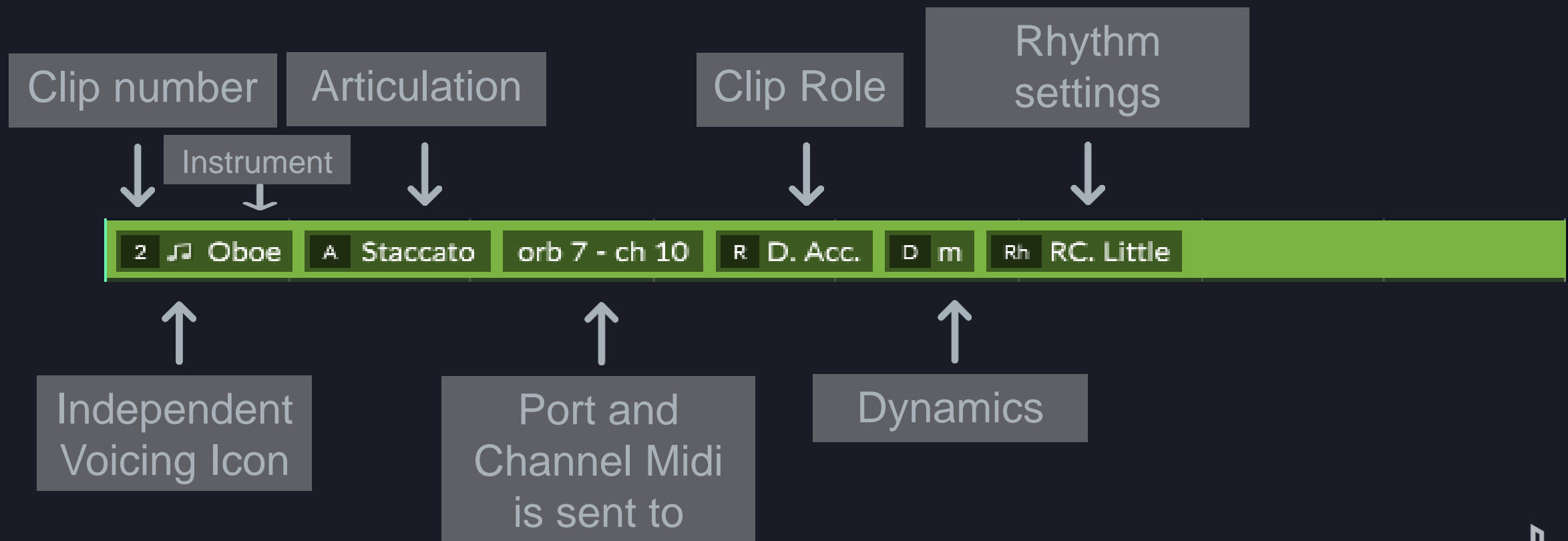


# Clip Parameters

## General



Double click on a clip to display the clip parameters settings.



# Clip Parameters

## Clip Number



**Clip Number** : Displays the individual voicing number.

- Two clips with the same number means that one clip is doubling the other either rhythmically or completely (e.g., same notes, adjusting for the possible octave change)
- If the number field doesn't have color, it means it is a doubling voice.
- Otherwise, here is the meaning of the color coding of the voices:
  - Independent Accompaniment
  - Independent Melody
  - Independent Background
  - Independent Bass
- For more information about the instrument roles, see the Clip Roles section.



# Clip Parameters

## Voicing Icon



**Voicing icon** : Displays whether a clip is an independent voice or a doubling voice. It is a complement to the Clip Number icon.

- Note that an Independent background clip can be rhythmically doubling an Accompaniment clip. (This is more frequent in an Orchestral Music context.)



Independent Voice



Doubling Voice Rhythmically



Doubling Voice Completely ( Same Notes )



# Clip Parameters

## Clip Articulations



### Articulations

Mainly 4 Articulation Types :

- Legato (for Melody)
- Sustain
- Short With Release (Tenuto, Marcato, etc.)
- Short

**Note:** Changing the articulation might change the notes if they don't fit into the new articulation's range!

Clip Settings

Articulation Role Dynamics Rhythm Register Polyphony Different Chord Notes

Lock articulation for this clip

| Legato | Sustain | Short w/ Release | Short    |
|--------|---------|------------------|----------|
| Legato | Long    | Tenuto           | Staccato |
|        |         | Marcato          |          |
|        |         |                  |          |
|        |         |                  |          |

↑ ↑ ↑ ↑

One column for each articulation type

Apply Cancel



# Clip Parameters

## Clip Roles



### Roles

Mainly 4 Role Categories :

- Melody
- Accompaniment
- Background
- Bass

The melody doubling has 2 other settings « light », « harm »

- D = Doubling
- DI = Doubling Light (i.e., does not double all of the notes, mostly the strong beats)
- DI harm = Doubling harmonically with other intervals

Changing the role will update the clip notes **immediately** after the 'Apply' action.

Clip Settings

Articulation Role Dynamics Rhythm Register Polyphony Different Chord Notes

Lock role for this clip

| Melody           | Accompagnement   | Background    | Bass    |
|------------------|------------------|---------------|---------|
| Melody           | Accompaniment    | Background    | Bass    |
| D. Melody        | D. Accompaniment | D. Background | D. Bass |
| DI. Melody       |                  |               |         |
| D. Melody harm.  |                  |               |         |
| DI. Melody harm. |                  |               |         |

One column for each clip role type

Cancel



# Clip Parameters

## Clip Roles (continued)



### Melody

Plays the notes within the Tonality / Mode chosen and takes into account the chords chosen.

- Example: If you input Tonality : C Major & Chord Cm, Orb will prefer the Eb over the E natural but for the other scale notes, it will use the natural C Major Scale.

### Accompaniment

- Orb will mainly choose to play arpeggiated notes from the chord but sometimes chooses to include some foreign notes as well.
- Orb can invert chords by itself

### Background

- Orb will choose to play chords based on the input chords.
- It will smartly transpose between different chords.
- Orb can invert chords by itself

### Bass

- Orb will choose to play the fundamental note of the chord.
- **Orb won't invert chords by itself.**



# Clip Parameters

## Clip Dynamics



### Dynamics

4 Dynamics Categories :

- Straight / Flat
- Crescendo
- Decrescendo
- Crescendo then Decrescendo

Changing the Dynamics will update the clip notes velocities / CC1 **immediately** after the 'Apply' action.

Clip Settings

Articulation Role Dynamics Rhythm Register Polyphony Different Chord Notes

Lock dynamics for this clip

| Straight | Crescendo | Decrescendo | <>           |
|----------|-----------|-------------|--------------|
| pp       | pp < p    | ff > pp     | pp < p > pp  |
| p        | pp < m    | ff > p      | pp < m > pp  |
| m        | pp < f    | ff > m      | pp < f > pp  |
| f        | pp < ff   | ff > f      | pp < ff > pp |
| ff       | p < m     | f > pp      | p < m > p    |
|          | p < f     | f > p       | p < f > p    |
|          | p < ff    | f > m       | p < ff > p   |
|          | m < f     | m > pp      | m < f > m    |
|          | m < ff    | m > p       | m < ff > m   |
|          | f < ff    | p > pp      | f < ff > f   |

↑ ↑ ↑ ↑

Apply Cancel

One column for each clip role type





# Clip Parameters

## Clip Rhythms



### Momentum

- Affects the number of horizontal notes per bar. The higher the momentum, the more horizontal notes in the clip.

### Complexity

- Affects the complexity of the rhythm. The higher the complexity, the more sub-rhythms in the clip.

Changing the rhythm settings will update the clip notes **immediately** after the 'Apply' action.

### Clip Settings

Articulation | Role | Dynamics | **Rhythm** | Register | Polyphony | Different Chord Notes

Lock rhythm for this clip

Momentum  Very Low  Low  Average  High  Very High

Complexity  Very Low  Low  Average  High  Very High

Customize rhythm:

♪   ♪   ♫   ♬

Apply   Cancel



# Clip Parameters

## Clip Register



### Register

- Affects the range within which the instrument will play.
- A 'Very High' value will make the instrument play in its highest register. A 'Very Low' value will do the opposite.
- Please note that for some instruments, e.g., orchestral instruments, the difference between 'Very Low' and 'Very High' can be as little as one octave.

Changing the register settings will update the clip's note octaves **immediately** after the 'Apply' action.

The screenshot shows the 'Clip Settings' dialog box with the 'Register' tab selected. The dialog has a title bar with 'Clip Settings' and a close button. Below the title bar are several tabs: 'Articulation', 'Role', 'Dynamics', 'Rhythm', 'Register', 'Polyphony', and 'Different Chord Notes'. The 'Register' tab is active, showing a checkbox for 'Lock register for this clip' which is currently unchecked. Below the checkbox is a vertical list of register options: 'Register', 'Very Low', 'Low', 'Medium', 'High', and 'Very High'. The 'Medium' option is highlighted in green. At the bottom right of the dialog are 'Apply' and 'Cancel' buttons.



# Clip Parameters

## Clip Polyphony



### Polyphony (only for Background Role)

Changes the polyphony of the instrument.

- Please note that for most instruments, the articulation in the VST/AU must allow polyphony. For example, most orchestral sound banks won't take into consideration the polyphony setting for a Legato articulation.

Changing the polyphony settings will update the clip notes **immediately** after the 'Apply' action.

Clip Settings

Articulation Role Dynamics Rhythm Register Polyphony Different Chord Notes

Lock polyphony for this clip

| Polyphony |
|-----------|
| Pol. 1    |
| Pol. 2    |
| Pol. 3    |
| Pol. 4    |
| Pol. 5    |

Apply Cancel



# Clip Parameters (Clip Different Chord Notes)



**Different Chord Notes** (only for Accompaniment Role) Changes the different chords used by the accompaniment clip.

- Example : CM chord & 3 Different Chord Notes. Orb might choose C / E / G / C / E / G / C / E
- If Orb decides to pick foreign notes as well, they won't count in the different chord notes value. Also, Orb decides if the same note at a different octave is considered a different note.

Changing the polyphony settings will update the clip notes **immediately** after the 'Apply' action.

Clip Settings

Articulation Role Dynamics Rhythm Register Polyphony Different Chord Notes

Lock DCN for this clip

Chord Notes

1 Chord Note

2 Different Chord Notes

3 Different Chord Notes

4 Different Chord Notes

Apply Cancel

