changePitch.ly

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1 Description

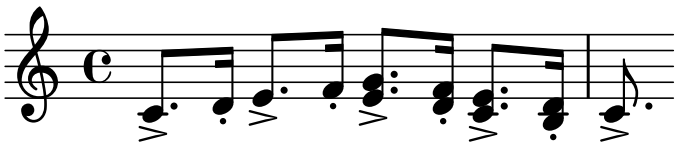
The syntax of `\changePitch` is :

▷ *syntax* : `\changePitch pattern newnotes`

This will replace each notes (or chords) in `pattern` by notes or chords from `newnotes`. If the notes count in `newnotes` is greater, the pattern is copied repeatedly and truncated if needed.

EXAMPLE 1

```
pattern = { c8.-> c16-. }
newnotes = \relative c' {
  c d e f
  <e g> <d f> < c e> < b d>
  c }
\changePitch \pattern \newnotes
```

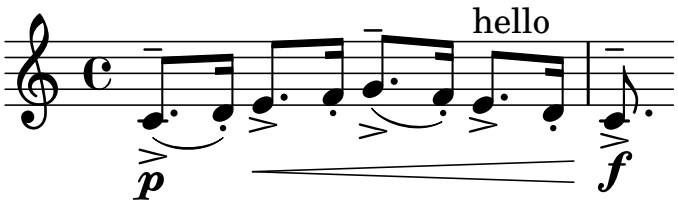


2 Articulations

All events attached to a note or a chord in `newnotes` (such as scripts, articulations, dynamics etc...) are mixed with those, contained in the current note of pattern.
Here is the result, when replacing the `newnotes` definitions of the example 1 :

EXAMPLE 2

```
newnotes = \relative c' {
  c^-\p( d) e\< f
  g^-( f) e^"hello" d
  c^-\f
}
```

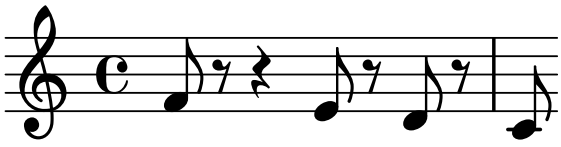


3 Events beetween 2 notes in pattern

All events after the current note (rests, overrides) in `pattern` are added unless the last notes of `newnotes` is reached.

EXAMPLE 3

```
pattern = { c8 r r4 c8 r c r}
newnotes = \relative c' { f e d c}
```



If you do want those events at the end, see 4) with the usage of `\skip` in newnotes.

4 Using *rest*s and \skip events in newnotes

Rests in `newnotes` are allowed (the note in `pattern` is just replaced by the rest) but `\skip` events in `newnotes` have a special meaning :

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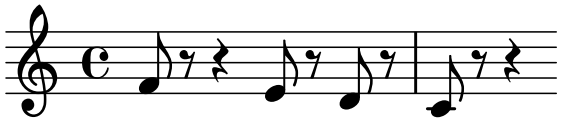
when a `\skip` event is encountered in `newnotes`, the current note in `pattern` (and all not-note events after it) will be skipped. `\changePitch` will jump to the next note of the pattern.

Here is example 3 with a `\skip` added to the end of `newnotes`

Example 4

```
pattern = { c8 r r4 c8 r c r}
newnotes = \relative c' { f e d c s}
```



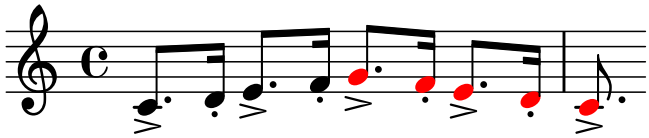
5 Using a function \insert in newnotes

▷ *syntax* : `\insert music`

The `\insert` function has to be used in `newnotes`. It will insert a piece of music *between the current notes of* `pattern` *and his following.* All extra existing music (rests for example) between these 2 notes will be replaced.
It is also possible to insert a music even if the current note of `pattern` is the last one.

Example 5

```
pattern = { c8.-> c16-. }
newnotes = \relative {
  c d e f
  \insert { \override Voice.NoteHead #'color = #red }
  g f e d
  c }
```



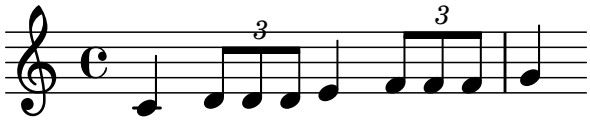
6 Using a function \samePitch in pattern - Automatic tie grouping

▷ *syntax* : `\samePitch music`

- The `\samePitch` function has to be used in the `pattern`. It allows you to group several notes and assign all notes of this group to the same current pitch in `newnotes`.

Example 6a

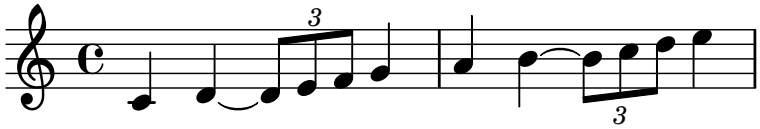
```
pattern = { c4 \tuplet 3/2 \samePitch { c8 c c } }
newnotes = \relative c' {
  c d e f g  }
```



- Since version year 2016, `\changePitch` has a new behaviour with tied notes. Now, two tied notes are automatically grouped in a `\samePitch` section.

Example 6b

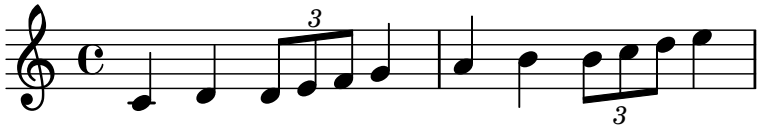
```
pattern = { c4 c4~ \tuplet 3/2 { c8 c c } c4 }
newnotes = \relative c' {
  c d e f g a b c d e }
```



- In some situations, you may want to mimic this behaviour but with two not-tied notes. In such case, you can tag the first note with a special `\tag : fakeTie` as follow :

Example 6c

```
pattern = { c4 \tag #fakeTie c4 \tuplet 3/2 { c8 c c } c4 }
newnotes = \relative c' {
  c d e f g a b c d e }
```



- For compatibility for pieces done with previous version of *changePitch.ly* (before 2016), you can add the following special instruction to the very beginning of these pieces, just before the `\include` :

```
#(define cPCheckForTies #f)
\include "changePitch.ly"
```

7 Using a function \nCopy in newnotes - Speeding notes entry

▷ *syntax* : `\nCopy n music`

`\nCopy n music`
has the same effect than
`\repeat unfold n music`
but `\repeat` doesn't work inside `newnotes`. `\nCopy` does.

```
\changePitch {c8. c16}
  { \nCopy 2 {a b c' d'}
    \nCopy 2 {e' f' g' a'}}
```

will produce

```
{ a8. b16 c'8. d'16
  a8. b16 c'8. d'16
  e'8. f'16 g'8. a'16
  e'8. f'16 g'8. a'16
  }
```

In relative mode, you have to repeat `\relative` to each call

```
\changePitch {c8. c16}
  { \nCopy 2 \relative {a b c d}
    \nCopy 2 \relative {e' f g a}}
```

8 shortcuts

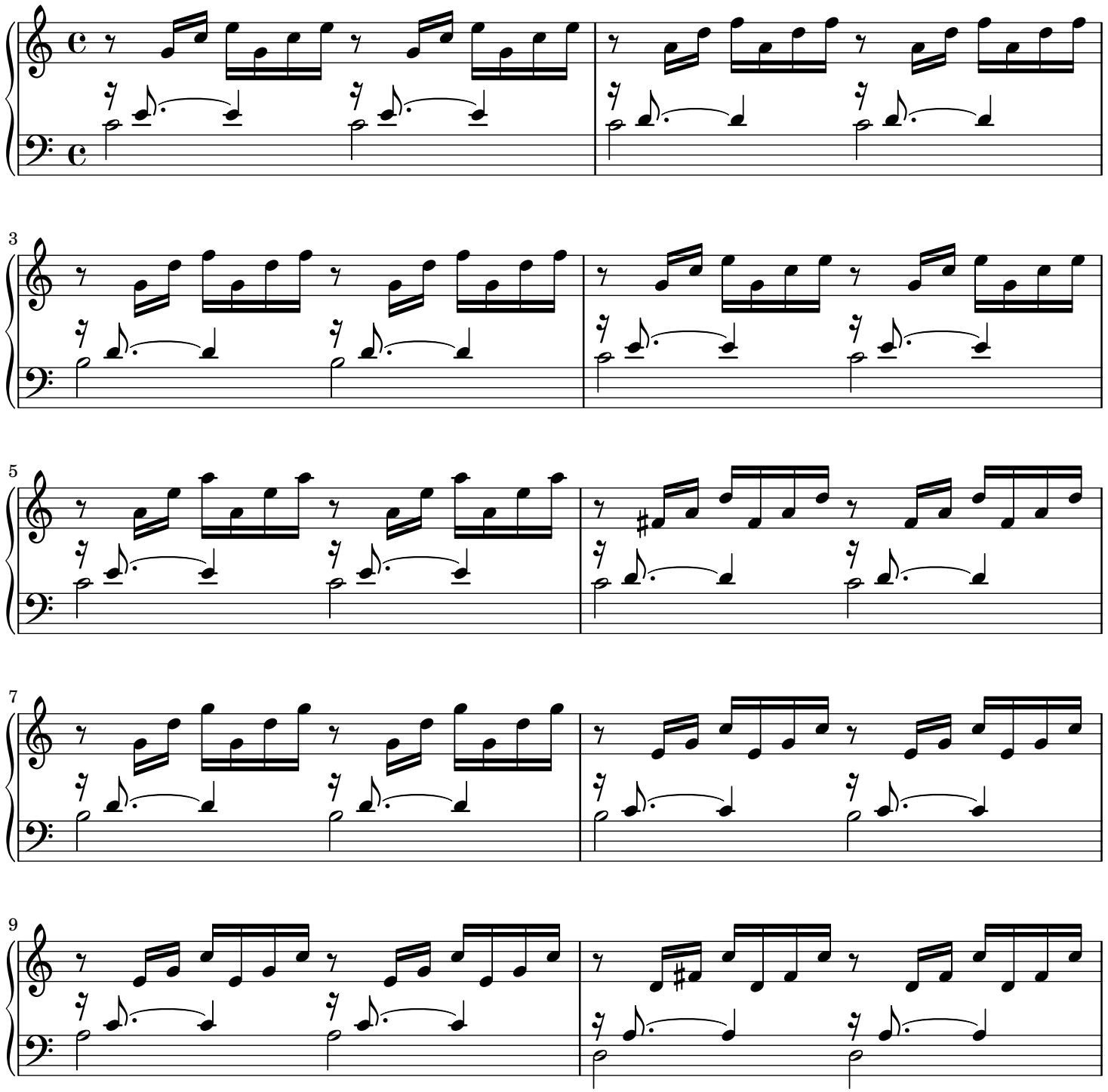
Three shortcuts have been defined : `\cP` `\cPI` and `\cPII`
For shorcuts `\cPI` et `\cPII` you have first to define patterns called respectively patI and patII

shortcut	effect
`\cP pattern newnotes`	`\changePitch pattern newnotes`
`\cPI newnotes`	`\changePitch \patI newnotes`
`\cPII newnotes`	`\changePitch \patII newnotes`

Here is the last example (in a more complex situation)

```
patI = \repeat unfold 2 {r8 \repeat unfold 2 {g16 c e}}
patII = \repeat unfold 2 { <<
                \new Voice {\voiceTwo c2 }
                \new Voice {\voiceOne r16 e8.~ e4 }
                >> }
\score { \new PianoStaff <<
  \new Staff \cPI \relative c' {
        g' c e
        a, d f
        g, d' f
        g, c e
        a, e' a
        fis, a d
        g, d' g
        e, g c
        e, g c
        d, fis c' %etc
   }
  \new Staff {
        \clef bass
        \cPII \relative c' {
           c e
           c d
           b d
           c e
           c e
           c d
           b d
           b c
           a c
           d, a'  %etc
        }
    }
  >>
}
```

Example 7



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