OctaMED

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OctaMED

1.1 Writing a Song / Tracker Editor Control

```
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                   Move around a block

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```
The Tracker editor is the main method of writing a song in OctaMED,
used to enter and display notes. Knowing how to control the Tracker
editor – entering notes, moving around a block, using the mouse –
is fundamental in composing with OctaMED.

An introduction to the Tracker editor can be found in the opening
chapters of the printed manual. We recommend you read the section
for new users before consulting this help guide.

1.2 Tracker Editor Control / How To Move Around A Block

```
                  HOW TO MOVE AROUND A BLOCK
INTRODUCTION
```
In the Tracker editor, the current line in the block is highlighted
with a horizontal bar which is usually white. On that bar, there is
a small rectangular patch in the background colour; this is the
cursor. The track on which this cursor resides is called the
current track. Both current line and cursor position can be moved.

```
STEPS
1) EITHER Use the two scroll bars.
   > Drag the vertical scroll bar, along the right side of the
     window, to scroll the block up and down OR
```

> Drag the horizontal scroll bar, along the bottom, to scroll
  the block left and right (mainly for blocks with many tracks)

  OR Use the cursor movement keys. Here is a selection: More
  > Use the cursor keys to move the cursor in single steps OR
  > Press one of F6 - F10 to move to the start/middle/end/etc. OR
  > Press Alt-<left> or Alt-<right> to move across tracks

NOTES
* All keyboard shortcuts, including cursor movement keys, can be   More
  redefined through the Keyboard Shortcuts window.

* The F6 - F10 keys can be set to move to the first five
  highlighted lines in a block, rather than their usual positions.
                  More
                   Switch on Keyboard Options window -> F6-F10 = Highlights.   ↩
                  Where?

* Space mode affects cursor movement as well as note entering. When
                  More
                   Keyboard Options -> Auto-Round Spacing is on, cursor movement is ↩
                     Where?
  restricted to lines divisible by the spacing value. These are the
  lines on which notes are usually entered in space mode.

* Another way to position the cursor is simply to click on a new
  position, using the mouse button set to Position Cursor in the
                  More
                   Mouse Options window (if any).

* To hear the block's notes as you move around the block, switch on
  Keyboard Options -> Advance with sound.   Where?

1.3 Tracker Editor Control / Entering Notes And Chords

                        HOW TO ENTER A NOTE
INTRODUCTION
An introduction to creating a song, including entering notes, is
provided in the printed manual. We suggest you read it, if you
haven't already done so.

STEPS
1) Move the cursor to the desired note position.
                How?
                2) Select the required instrument.   How?

3) Select the required keyboard octave range.
   > Set Main Control window -> Oct cycle gadget appropriately OR   Where?
   > Press F1 to F5   More

4) Ensure that Edit mode is on.
   > Switch on Main Control window -> Edit   Where?

5) Press the desired note's key.   More

```
NOTES
* To delete a note, press the Del key in step 5 above. To delete      More
  the note and its player command, press Shift-Del.

* To enter an instrument at its default pitch, press the F key (for   More
  deFault).

* A note can only be entered if the Main Control, Tracker editor      More
  or Information window is currently 'active'.

* Another way of entering notes is through the programmable keys.
                   How?
                   * When Edit mode is on, an E appears in the Information window's
  bottom-right information box.

* In some countries, the note between A# and C is called H, rather
  than B. To display H's instead of B's, switch on
  Miscellaneous Options window -> H -> B.              Where?

ALSO SEE

                   How To Enter A Player Command
                         HOW TO ENTER A CHORD
STEPS
1) Follow steps 1 to 4 of How To Enter A Note.
               Where?
               2) Switch on Chord mode.
   > Switch on Main Control window -> Chord

3) Select or deselect any tracks, as appropriate. Chord notes will    How?
   only be entered on selected tracks.

4) Hold down the keys of the chord's notes together.          More

5) Release the keys.

NOTES
* When Chord mode is on, a C appears in the Information window's
  bottom-right information box.

TIPS
* This method takes up several tracks. By using the Sample Editor's  More
  Chord Creation facility, the chord can take up only one track.
  This is recommended if the chord is used often in the song, or if
  you have enough memory to create a separate chord for every chord
  type needed. There is a loss of sound quality, though.
```

1.4   Tracker Editor Control / How To Set What Happens After Entering

```
                         HOW TO SET WHAT HAPPENS AFTER ENTERING
INTRODUCTION
These settings are used after entering a note,
               How?
              player command or
               How?
```

```
                         chord.
                          How?
                         STEPS
1) Open the Keyboard Options window.
   > Settings menu -> Keyboard Options


2) Set the direction of line advance, under Advance Line.       Sh'cut
   > Click Don't advance [doesn't move to a new line] OR
   > Click Up [moves up a line] OR
   > Click Down [moves down a line]


3) Set the direction of track advance, under Advance Track.      Sh'cut
   > Click Don't advance [doesn't move to a new track] OR
   > Click Prev track [moves left a track] OR
   > Click Next track [moves right a track]


4) Set the direction of cursor advance, under Advance Cursor.     Sh'cut
   > Click Don't advance [doesn't move to a new cursor position] OR
   > Click Left [moves left a cursor position] OR
   > Click Right [moves right a cursor position]

   * Only used after entering a player command or instrument
     digit. In other words, the cursor must be on one of the
     five digits beside a note.


5) Switch Space mode on/off, and set the Space value.
   > Switch Main Control window -> Space on or off THEN       Where?
   > Set the Space Value slider appropriately. For example, a
     value of 4 will allow notes to be entered every 4th line

   * Space mode allows notes to be entered every so-many lines.     Sh'cut
     Intervening lines are skipped after entering, leaving a
     space. This is especially useful when entering slow pieces
     of music. The default Space value 2 is usually used.


6) Set Chord Reset appropriately. When on, the cursor moves back
   to the first chord note after entering a chord.
                      More
                        > Switch Chord Reset on or off.


NOTES
* When Destructive Spacing is on, any notes lying between the
  lines used for entering spaced notes will be deleted when a
  note is entered.

* When Space mode is on, an S appears in the Information window's
  bottom-right information box.

* Try clicking on the Space check box with a Shift key held down.
  The Keyboard Options window opens, with a view to changing the
  Space Value slider.
```

1.5 Tracker Editor Control / How To Set Up And Use The Mouse

                     HOW TO SET UP AND USE THE MOUSE
INTRODUCTION
When you click inside the Tracker editor, OctaMED can do one of
four tasks. Use the Mouse Options window to assign each mouse
button to a task.

1) Open the Mouse Options window.
   > Settings menu -> Mouse Options

2) By setting the three cycle gadgets appropriately, assign a task
   (or No Operation) to each mouse button. Possible options are:

   a) Track On/Off: Click on a track with the mouse button to
      switch that track on/off. Equivalent to clicking the track's   More
      number button at the top of the Tracker editor.

   b) Selected Track: Click on a track with the mouse button to
      select/deselect that track. Equivalent to clicking the
      track's S button at the top of the Tracker editor.

      * Selected tracks are used in a handful of editing
   operations. By default, all tracks are selected: the S
   buttons along the top of the Tracker editor are all on.

   c) Position Cursor: Click on a note or digit with the mouse
      button to move the cursor to that position.

   d) Select Range: Hold down the mouse button and drag along a
                More
                       section of notes/digits to mark a range.

   e) No Operation: The button has no effect.

NOTES
* Of course, if you have a two-button mouse, the Middle Button
  cycle gadget is of no use to you!

ALSO SEE

          Marking A Range

1.6   Writing a Song / Marking A Range

          HOW TO...

           Mark a range with the mouse

             Mark a predefined range
          OVERVIEW
A 'range', in the Tracker editor, is a rectangular area of notes
highlighted in white (in the default colour scheme). This area is
used in many editing operations, such as cut/copy/paste, transpose
and note echo.

Usually, a range is marked by holding down the left mouse button

and dragging over the required area of notes. This behaviour can be
changed through the Mouse Options window. A couple of 'preset'
ranges also exist.

1.7   Marking a Range / Marking A Range

                         HOW TO MARK A RANGE WITH THE MOUSE
STEPS
1) If necessary, assign a mouse button to Select Range. Usually,
                 How?
                    the left mouse button selects a range, but you may have changed
   this behaviour.

2) Move the mouse pointer to the top-left corner of the area to be
   marked.

3) Holding down the assigned mouse button, drag the mouse to the
   bottom-left corner of the area. The area should be highlighted.

NOTES
* A range can be larger than the area of notes visible in the
  Tracker editor. For example, to extend the range to lines further
  up in the block, drag the mouse off the top of the window. The
  Tracker editor will scroll downwards, revealing more lines.

* To cancel (remove) the range without affecting any notes, simply
  click the assigned mouse button anywhere on the Tracker editor.

* To bring back the most recently marked range, select Edit menu ->
  Re-mark Range.

        HOW TO MARK A PREDEFINED RANGE
STEPS
1) EITHER Mark a range over the entire block in one go.
   > Edit menu -> Range Current Block   Sh'cut

   OR Mark a range over the whole of the current track.
   > Move the cursor to the required track THEN
                How?
                   > Edit menu -> Range Current Track   Sh'cut

1.8   Writing a Song / Rearranging Blocks/Tracks

                 HOW TO...

                    Move or copy a track to another track

                    Move or copy a block to another block

                     Move or copy an area to another area

Clear everything in a block, track or area

Swap two tracks

Swap two blocks

OVERVIEW

Rectangular sections of notes, whole tracks and whole blocks can
be moved around at will. The cut, copy and paste operations
familiar to wordprocessor users are available in OctaMED, together
with clearing and swapping facilities.

Most of these operations are achieved by way of a 'copy buffer'.
This is a temporary storage area, in which sections, tracks or
blocks are placed en route. For example, the method for moving a
track is to transfer the track's contents to the copy buffer, then
to 'paste' (insert) the copy buffer's contents in the desired new
track.

NOTES

* There are three different copy buffers, a separate one for
  blocks, tracks and areas. Some 'hidden' copy buffer operations,
  including the interchange of notes between the three buffers, are
  available through ARexx.   More

* All Cmd Pages is an item in the Block, Track and Edit menus, that
  affects cutting and copying. When on, Cut and Copy affect all
  command pages. When off, only notes in the current command page
  are cut or copied.

  If there is only one page in a copy buffer, pasting the copy
  buffer pastes it to the current page. If there are several pages
  in the buffer, they are pasted to their respective positions,
  starting from page 1.

1.9   Rearranging Blocks/Tracks / How To Move Or Copy Block Parts

HOW TO MOVE OR COPY A TRACK TO ANOTHER TRACK

STEPS

1) Move to the track whose contents are to be moved or copied.
                How?
                2) EITHER Remove the track's contents [to move the track].
   > Track menu -> Cut   Sh'cut

   OR Copy the track's contents [to copy the track].
   > Track menu -> Copy   Sh'cut

3) Move to the track where the contents should be placed.
                How?
                4) Insert the copy buffer contents.
   > Track menu -> Paste   Sh'cut

HOW TO MOVE OR COPY A BLOCK TO ANOTHER BLOCK

STEPS

1) Select the block whose contents are to be moved or copied.   How?

```
2) EITHER Remove the block's contents [to move the block].
   > Block menu -> Cut                    Sh'cut

   OR Copy the track's contents [to copy the block].
   > Block menu -> Copy                   Sh'cut

3) Select the block where the contents should be placed.        How?

4) Insert the copy buffer contents.
   > Block menu -> Paste                  Sh'cut

NOTES
* Pasting a block changes the dimensions of the current block
  to that of the block in the copy buffer, so that the pasted
  block is an exact replica of the copy buffer.


      HOW TO MOVE OR COPY AN AREA TO ANOTHER AREA
STEPS
1) Mark a range over the required area.
                 How?
                  2) EITHER Remove the range's contents [to move the range].
   > Edit menu -> Cut Range               Sh'cut

   OR Copy the range's contents [to copy the range].
   > Edit menu -> Copy Range              Sh'cut

3) Move to the top-left corner of the place where the range should
                 How?
                   be inserted.

4) Insert the copy buffer contents.
   > Edit menu -> Paste Range             Sh'cut

TIPS
* Instead of Paste Range, try Paste To Selected Tracks. This pastes
  consecutive tracks in the copy buffer to consecutive *selected*
  tracks in the current block. Usually, all tracks are selected,
  but if you want to prevent OctaMED from pasting in a particular
  track, deselect the track.                How?
```

1.10   Rearranging Blocks/Tracks / How To Clear A Block Part

```
                    HOW TO CLEAR EVERYTHING IN A BLOCK, TRACK OR AREA
STEPS
1) Mark a range over the block, track or area. Remember the quick
               How?
                  way of marking a range over a block or track, in the Edit menu.

2) Clear the range.
   > Select Edit menu -> Erase Range

NOTES
* Another way of clearing a block or track is to 'cut' it, i.e.
```

```
  select Block or Track menu -> Cut. The old block or track
  contents are stored in the appropriate copy buffer, so this
  consumes a bit of memory but you can later retrieve the contents
  if necessary.

ALSO SEE
   How To Clear A Block
```

1.11   Rearranging Blocks/Tracks / How To Swap Two Blocks Or Tracks

```
                        HOW TO SWAP TWO TRACKS
STEPS
1) Move to one of the tracks to be swapped.
                 How?
              2) Copy the track to the copy buffer.
   > Select Track menu -> Copy            Sh'cut

3) Move to the other track to be swapped.
                 How?
              4) Swap the copy buffer with the current track.
   > Select Track menu -> Swap w/Buff          Sh'cut

5) Move to the first track again.
                 How?
              6) Paste the copy buffer to the current track.
   > Select Track menu -> Paste           Sh'cut

TIPS
* This is an ideal function for an ARexx script!


        HOW TO SWAP TWO BLOCKS
STEPS
1) Select one of the blocks to be swapped.          How?

2) Copy the block to the copy buffer.
   > Select Block menu -> Copy            Sh'cut

3) Select the other block to be swapped.          How?

4) Swap the copy buffer with the current block.
   > Select Block menu -> Swap w/Buff            Sh'cut

5) Move to the first block again.          How?

6) Paste the copy buffer to the current block.
   > Select Block menu -> Paste           Sh'cut

TIPS
* As always, this is so much easier if the two blocks are named...   More
```

1.12   Writing a Song / Transposing And Changing

```
                    HOW TO...

                  Transpose notes

        Change or swap notes of a particular pitch

        Change or swap notes' instrument numbers

                Change player commands
```
                    OVERVIEW
'Transposition' is the changing of the pitch of a group of notes,
so that they all sound higher or lower together. OctaMED can
transpose a group of notes, change or swap particular notes or
their instrument numbers, or change player commands.

In fact, OctaMED can change any note 'pattern', including a note,
instrument number and player command, into any other pattern.
Particular parts can be ignored, so that (for example) all notes
played on instrument 06 and having player command 0442 should have
their player command changed to 0445, regardless of the actual note
name. This ignoring is called 'transparency', and this facility is
provided in the Replace Notes window.

While the whole song can be affected if desired, transposition,
changing and swapping can be restricted to certain parts of the
song; namely, the current block or track, selected tracks or a
marked range. Either all instruments or just the current instrument
can be affected.

For a fuller description of the Replace Notes window, including
several examples, turn to part 14.1 of the printed manual.

1.13   Transposing and Changing / How To Transpose Notes

                    HOW TO TRANSPOSE NOTES
STEPS
1) Decide on the area to be affected by the transposition. Possible
   areas are the current song/block/track, selected tracks or a
   marked range.

2) Select this area appropriately.
   > Select the current song (if there is more than one) OR   How?
   > Select the current block OR   How?
   > Move to the current track OR
                How?
                  > Select/deselect tracks as necessary OR   How?
   > Mark a range
                How?
                3) Open the Transpose window.
   > Edit menu -> Transpose

4) In the window, select the area to be affected by the
   transposition.
   > Click Song, Block, Track, Selected Tracks or Range.

5) If necessary, select the instrument(s) the notes played by which
   will be affected.
   > Click All Instrs or Current Instr THEN
   > If you've chosen Current Instr, select the current instrument. How?

6) Choose the required transposition.
   > Click Octave Up OR
   > Click Halfstep Up OR
   > Click Halfstep Down OR
   > Click Octave Down

NOTES
* For British users, 'halfstep' is the American word for semitone.

* To transpose by more than one halfstep or octave, click on the
  appropriate gadget repeatedly.

* The Out-of-Range cycle gadget determines what OctaMED should do
  with notes to be made lower than C-1 or higher than F#B, as a
  result of a transposition. Change Octave transposes the note name
  but leaves the octave number unaffected. Leave Intact leaves the
  whole note unaffected. Deleted removes the whole note.

* Individual instruments   How?
  and whole songs can also be transposed, without actually   How?
  affecting the song's notes, using transposition sliders.
  OctaMED can perform necessary 2-octave transpositions for Mix
  mode when starting a new song or   How?
  when loading an old song.   How?

1.14 Transposing and Changing / How To Change/Swap Particular Notes

                        HOW TO CHANGE OR SWAP NOTES OF A PARTICULAR PITCH
STEPS
1) Decide on the area to be affected by the change or swap.
   Possible areas are the current song/block/track, selected tracks
   or a marked range.

2) Select this area appropriately.
   > Select the current song (if there is more than one) OR   How?
   > Select the current block OR   How?
   > Move to the current track OR
                How?
                   > Select/deselect tracks as necessary OR   How?
   > Mark a range
                How?
              3) Open the Transpose window.
   > Edit menu -> Transpose

4) In the window, select the area to be affected by the change or
   swap.
   > Click Song, Block, Track, Selected Tracks or Range.

5) If necessary, select the instrument(s) the notes played by which

```
   will be affected.
   > Click All Instrs or Current Instr THEN
   > If you've chosen Current Instr, select the current instrument.  How?
```

```
6) Select the two notes involved in the change or swap. For changes,
   the source note is changed to the destination note. For swaps,
   it doesn't matter which note is the source or destination.
   > In the Change Notes area (bottom left), set the Source and     How?
     Destination pitch boxes.
```

```
7) EITHER Change all Source notes to Destination notes.
   > Click Change (bottom-left)
```

```
   OR Swap all Source and Destination notes.
   > Click Swap (bottom-left)
```

1.15   Transposing and Changing / How To Change/Swap Notes' Inst. Numbers

```
                   HOW TO CHANGE OR SWAP NOTES' INSTRUMENT NUMBERS
STEPS
1) Decide on the area to be affected by the change or swap.
   Possible areas are the current song/block/track, selected tracks
   or a marked range.
```

```
2) Select this area appropriately.
   > Select the current song (if there is more than one) OR      How?
   > Select the current block OR                 How?
   > Move to the current track OR
               How?
                   > Select/deselect tracks as necessary OR          How?
   > Mark a range
               How?
               3) Open the Transpose window.
   > Edit menu -> Transpose
```

```
4) In the window, select the area to be affected by the change or
   swap.
   > Click Song, Block, Track, Selected Tracks or Range.
```

```
5) State the two instruments involved in the change or swap. For
   changes, notes played by the source instrument are changed to be
   played by the destination instrument. For swaps, it doesn't
   matter which instrument is the source or destination.
   a) Select and state the source instrument.
      > Select the source instrument             How?
      > Click Source (bottom-right)
   b) Select and state the destination instrument.
      > Select the destination instrument        How?
      > Click Destination (bottom-right)
```

```
6) Ensure that Instrument Slots is switched off.
   > If necessary, click Instrument Slots (bottom-right)
```

```
7) EITHER Change all Source notes to Destination notes.
   > Click Change (bottom-left)
```

```
    OR Swap all Source and Destination notes.
    > Click Swap (bottom-left)
```

NOTES
* The Delete button (bottom-right) deletes notes played by the
  source instrument.

* When Instrument Slots is on, actual instruments are affected   More
  rather than the notes played by those instruments.

1.16   Transposing and Changing / How To Change Player Commands

```
                     HOW TO CHANGE PLAYER COMMANDS
INTRODUCTION
This how-to introduces the powerful Replace Notes window. For a
fuller description of this window, we refer you to part 14.1 of the
printed manual.


STEPS
1) Decide on the area to be affected by the transposition. Possible
   areas are the current song/block/track, selected tracks or a
   marked range.

2) Select this area appropriately.
   > Select a song (if there is more than one) OR        How?
   > Select a block OR                      How?
   > Move to a track OR
                How?
                  > Select/deselect tracks as necessary OR         How?
   > Mark a range OR
                How?
                  > Move to a particular note
                How?
               3) Open the Replace Notes window.
   > Edit menu -> Replace Notes

4) Set the source and destination player command. The source
   command will be changed to the destination command.
   > Change the player command digits of Source and Destination in   How?
     the usual way OR
   > Move to an example of each player command in the Tracker
                How?
                      editor, then click Pick

5) Ensure that the note and instrument number of both Source        How?
   and Destination full notes are transparent. In other words, the
   first five letters/digits of each full note should be xxxxx.
   This is especially important if you used the Pick method above.

6) Change the player commands in the desired area.
   > Click Song, Block, Track, Sel. Tracks, Range or Note

NOTES
* Click Res to reset the full notes to xxxxxxxx. This is the
```

'safest' setting, because all letters/digits are ignored; in
other words, no changes are made to any part of the full note.

TIPS
* A quick way to 'undo' the effect of clicking one of the area
  buttons (Song, Block, etc.) is to swap the source and
  destination, then click the area button again. To do a swap,
  click the Swap button between the two full notes.

1.17   Writing a Song / The Programmable Keys

                    HOW TO...

                     Define a programmable key

                     Enter a programmable key
                    OVERVIEW
The programmable keys, or 'progkeys', allow music to be entered
much more easily and quickly. You can assign notes or groups of
notes, including their player commands, to 10 different keys. The
assigned notes can then be inserted anywhere in the Tracker editor,
by holding down Shift and pressing key 0-9.

The real power of progkeys comes through 'transparency'. For
example, you can set up a progkey to insert a particular player
command, but leave the note and instrument number untouched.

1.18   The Programmable Keys / How To Define a Progkey

                    HOW TO DEFINE A PROGRAMMABLE KEY

INTRODUCTION
There are two methods of defining a progkey. You can enter a note
directly into the full note box in the Programmable Keys window.
Alternatively, you can 'pick' a note or range for the progkey. The
note that the Tracker editor cursor is over, a marked range or the
copy buffer can all be chosen as the progkey definition.

You can define either the main keys Shift-0-9, or the Right Alt
definition. A player command can be assigned to the Right Alt key;
when Right Alt is held down while entering a note in the Tracker
editor, that player command is inserted with the note.

STEPS
1) If you intend to 'pick' the progkey, ensure that the Tracker
   editor cursor is over the required note, the required range is
                How?
                  marked, or the copy buffer contains the required information.
                How?
                2) Open the Programmable Keys window.
   > Settings menu -> Programmable Keys

```
3) EITHER Select a key 0-9 to define.
   > Ensure that the top-left cycle gadget is set to Numeric
   > Move the top-right slider to the desired key number

   OR Choose to define Right Alt.
   > Set the top-left cycle gadget to Right Alt

4) EITHER Edit the full note roughly in the middle of the window.    How?

   OR Pick the progkey.
   > Click Note [picks the note under the Tracker editor cursor] OR Sh'cut
   > Click Range [picks the marked range in the Tracker editor] OR
   > Click Buffer [picks the copy buffer]

NOTES
* The Clear button resets the current progkey to --- 00000.

* Programmable keys can be saved and loaded, using the Save Keys
  and Load Keys buttons. They may be saved under any name, but if
  given the default name PROGDIR:Soundstudio.defprogkeys, they will
  be loaded on startup.
```

1.19   The Programmable Keys / How To Enter a Progkey

```
      HOW TO ENTER A PROGRAMMABLE KEY
INTRODUCTION
After defining a progkey, it is a simple matter to enter it. To
enter programmable key 4, for example, press Shift-4. To enter the
Right Alt definition with a note, enter the note with Right Alt
held down.

STEPS
1) Move to the Tracker editor.

2) Switch Edit mode on.
   > Main Control window -> Edit button           Where?

3) EITHER Enter one of the main keys 0 to 9.
   > Hold down Shift and press 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9
     (along the top row of keys, not on the numeric keypad)

   OR Enter a note together with the Right Alt player command.
   > Hold down Right Alt and enter a note
```

1.20   Writing a Song / Other Editing Features

```
               HOW TO...

                    Insert or remove a line

                    Insert or remove a track
```

                          Highlight lines

                  Split a block into two blocks

              Join two blocks together into one block

                  'Expand' or 'shrink' a block

                  Spread notes across consecutive tracks
                        OVERVIEW
While the rearrangement of parts of blocks is an important editing
facility, OctaMED provides many more tools to assist you in writing
a song.

There is a subtle difference between inserting/removing lines and
tracks. Inserting a line really does add a new line at the current
position, increasing the block's length by one. Inserting a track,
however, blanks the current track and moves the following tracks
one place to the right, without increasing the number of tracks so
that the contents of the rightmost track are overwritten. Similarly
for removal.

Highlighting Tracker editor lines in bold is useful in marking the
'beat' – the music's regular pulse – which is usually every 4
lines. In combination with F6–F10 = Highlights, it is also a way
                    More
              of marking commonly moved–to lines.

OctaMED can split a block in two or join two consecutive blocks
into one. 'Expanding' a block inserts one or more blank lines after
every existing line, all the way down the block, while 'shrinking'
does the opposite. Finally, the Spread Notes window is useful if
you wish to take advantage of a spare track or two.

1.21   Other Editing Features / Inserting/Removing Lines/Tracks

                    HOW TO INSERT OR REMOVE A LINE
INTRODUCTION
Unlike the analogous track operation, inserting or removing a line
changes the block's length. Insert Line adds a new line at the
current position, increasing the block's length by one. Delete Line
removes the current line, decreasing the block's length by one.

STEPS
1) Move to the appropriate line.
                How?
                2) EITHER Insert a new line before the current one.
   > Block menu -> Insert Line

   OR Remove the current line.
   > Block menu -> Delete Line

     HOW TO INSERT OR REMOVE A TRACK
INTRODUCTION

Inserting or removing a track does not alter the number of tracks
in the block. 'Inserting' a track moves the contents of all tracks,
from the current track rightwards, one place to the right. The
contents of the rightmost track are overwritten. 'Removing' a track
moves the contents of all tracks to the left of the current track
one place to the left. The current track is overwritten.

The result of inserting a track is that the current track is empty,
while removing a track empties the rightmost track.

You can insert/remove a track in just the current block, or (more
rarely) throughout the entire song. In the latter case, the same
track insertion/removal is applied to all blocks in the song.

STEPS
1) Move to the appropriate track.
                  How?
                  2) EITHER 'Insert' a new track at the current position.
   > Track menu -> Insert Empty -> Current Block OR
   > Track menu -> Insert Empty -> Throughout The Song

   OR 'Remove' the current track.
   > Track menu -> Delete -> Current Block OR
   > Track menu -> Delete -> Throughout The Song

1.22   Other Editing Features / How To Highlight Lines

                         HOW TO HIGHLIGHT LINES
INTRODUCTION
Certain Tracker editor lines can be highlighted in bold text. Any
line can be highlighted, by moving to it and pressing Tab, but more
commonly lines are highlighted in a particular order. For example,
highlighting every 4th line often marks the 'beat' of the music
(every four 16th notes).

Use the Highlight Options window to highlight lines in order.

STEPS

EITHER Highlight a single line.

1) Move to the appropriate line.
                  How?
                  2) Toggle the highlighting on this line.
   > Press Tab

   * As usual, the key used to toggle highlighting can be changed.   How?
     (The relevant command is ED_HIGHLIGHTLINE.)

OR Highlight lines in a particular order.

1) Open the Highlight Options window.
   > Block menu -> Highlight Options

2) EITHER Choose one of the preset highlighting spacings. For

```
   example, the 4 button highlights every fourth line.
   > Click 1, 2, 3, 4, 6, 8, 16 or 32

   OR Enter a custom spacing not given by the eight preset buttons.
   > Type in a spacing into the Spacing box
```

NOTES
* The Clear button removes all highlighting from the current block.

* Usually, highlighting starts on the first line (000). To make it
  start on a different line, enter the line number into Offset
  before following step 2 above.

* Trying to highlight a line which is already highlighted removes
  the highlighting from the line. So if every 4th line in a block
  is highlighted, click 4 again to remove all highlighting.
  (Alternatively, click Clear.) By clicking several preset buttons,
  weird and wonderful highlightings can be created!

1.23   Other Editing Features / How To Split And Join Blocks

```
                         HOW TO SPLIT A BLOCK INTO TWO BLOCKS
```
INTRODUCTION
A single block can be split into two consecutive blocks, at any
line. For example, block 002 can be split into block 002 and 003,
with the split occurring at line 032. In this case, block 002 would
contain the first 32 lines (000 to 031), while block 003 would
contain the remaining lines (from 032 onwards).

STEPS
1) Select the appropriate block.   How?

2) Move to the line at which the split should occur. The second of
                 How?
                    the two blocks will have this line as its first line.

3) Split the block.
   > Block menu -> Split At Cursor

NOTES
* In the example in the introduction, all block 002 playing
  sequence entries are increased to 003. This may be useful in some
  cases, but the best course of action is to manually change the
  sequence.


```
    HOW TO JOIN TWO BLOCKS TOGETHER INTO ONE BLOCK
```
INTRODUCTION
The reverse of splitting a block, two consecutive blocks can be
joined together into one block. For example, blocks 002 and 003 can
be joined into one long block 002.

STEPS
1) Select the first of the two blocks.   How?

2) Join the two blocks together.
   > Block menu -> Join With Next

NOTES
* In the playing sequence, all entries referring to the second of
  the two blocks are deleted.

1.24   Other Editing Features / How To Expand/Shrink Blocks

                         HOW TO 'EXPAND' OR 'SHRINK' A BLOCK
INTRODUCTION
Suppose that, somewhere in the block, these notes appear:

  C-2 10000
  E-2 10000

You realise that a D-2 10000 should appear between these notes, but
the C-2 and E-2 should be played in the same time as they do
currently. What you need to do is insert a new empty line after
every line in the block, then insert your D-2 and double the song
                How?
                 tempo. In effect, this halves the minimum note length available in ↩
                    How?
the block, and also doubles the number of lines in the block.

Expand Block exists for this purpose. OctaMED can insert a fixed
number of new empty lines after each existing line in the block.
This fixed number, or 'factor', is chosen by you. In the example
above, the factor should be 2.

Expand's opposite number, Shrink Block, removes every nth line,
where 'n' is the factor. Shrink Block reverses the effect of Expand
Block, and can remove unwanted lines if you underestimated the
required minimum note length for a particular block.

STEPS
1) Select the appropriate block.   How?

2) Open the Expand/Shrink Block window.
   > Block menu -> Expand/Shrink

3) If necessary, adjust the expansion or shrink factor.
   > Type a new value into the Factor box.

4) EITHER Expand the block.
   > Click Expand

   OR Shrink the block.
   > Click Shrink

NOTES
* Factor may be 1 to 99, but the expanded block length must not
  exceed 3200 lines (the maximum allowed block length), and the
  shrink factor must be divisible by the number of lines in the
  block.

```
TIPS
* Rhythms that would otherwise require expansion can be created
  using player commands 0FF1 to 0FF4 and type 1F. Do consider these  More
  before expanding a block.
```

1.25   Other Editing Features / How To Spread Notes

```
                        HOW TO SPREAD NOTES ACROSS CONSECUTIVE TRACKS
INTRODUCTION
The Spread Notes window is used to spread the notes in the current
range across several tracks. The number of tracks used for the
spread - the 'spread width' - can be adjusted. In the following
example, assume that there is a range marked over the notes C-2 D-2
E-2 F-2 G-2, and that the spread width is 3.

  Track  0   1   2   3         Track  0   1   2   3

  C-2 --- --- ---        C-2 --- --- ---
  D-2 --- --- ---        --- D-2 --- ---
  E-2 --- --- ---    becomes...    --- --- E-2 ---
  F-2 --- --- ---        F-2 --- --- ---
  G-2 --- --- ---        --- G-2 --- ---

STEPS
1) Mark a range over the appropriate notes, in one track only.
                How?
               2) Open the Spread Notes window.
   > Edit menu -> Spread Notes

3) If necessary, change the spread width.
   > Adjust the Width slider

4) Spread the notes.
   > Click Spread

NOTES
* Click Spread with Shift held down to both spread the notes and
  close the Spread Notes window.

* There can be spaces (blank notes) between the notes to be spread.
  If notes already exist in the consecutive tracks to the right of
  the range, however, the spread notes replace them.
```

1.26   Writing a Song / Player Commands

```
             HOW TO...

                        Enter a player command

                        Make a pitch slide
```

Make a volume or other slide

'Echo' a note throughout a range

Set decimal or hexadecimal volumes

Set a player command to perform an ARexx function
OVERVIEW

No doubt you'll have noticed that each track in the Tracker editor
is split into two distinct columns. There's a column of note names,
and a column of five digits. The first digit on each line is the
instrument number; the other four digits are the player command.

Player commands add special effects to notes, and ask OctaMED to do
certain things. They are divided into two pairs: the command 'type'
and the command 'level'. The type is the sort of special effect or
action, while the level controls the effect or action's intensity,
depth, speed and so on, depending on the sort of command.

For example, in the following full note:

  C-2 10C32

the player command has type 0C and level 32. As type 0C means 'set
volume', this player command sets the note's volume level to 32.
Type 0C is unique in that its level can be specified in decimal.
All other player command types have hexadecimal levels. Indeed, the More
type numbers themselves are in hexadecimal.

Player commands are generally entered one digit at a time, although
the programmable keys help, as do automatic slide creators. The
often-used 0C command type can echo a note throughout a range, and
its command level can be given in decimal or hexadecimal.

Finally, the Soundstudio's new facility to perform (or 'trigger')
ARexx commands through type 2D opens exciting new doors, especially
in multimedia presentations!

1.27   Player Commands / How To Enter A Player Command

HOW TO ENTER A PLAYER COMMAND
INTRODUCTION
The most straightforward way of entering a player command is to
enter each digit separately into the track. The how-to describes
this method; other methods are described in the notes.

A block can have several 'command pages', so that each note can be
attached to more than one player command. The following example
plays note G-2 at volume level 32 with a sample offset of $500 hex:

  Command page 1: G-2 10C32 Command page 2: G-2 11905

The block in which this note is entered needs at least 2 pages.   More

STEPS

```
1) Ensure that edit mode is on.
   > Main Control window -> Edit button           Where?

2) If necessary, select the appropriate command page.
   > Press Shift-Tab until the command page appears

3) Move to the leftmost player command digit, using the cursor
   keys.

4) Enter the leftmost digit.

5) Repeat steps 2 and 3 for the other three digits. Step 2 will
   probably involve pressing arrow key <up> then <right>.

NOTES
* After entering a digit, OctaMED can move the cursor one place
  to the right for you. Select
  Keyboard Options window -> Advance Cursor Right.        Where?

* Programmable keys can take some of the pain out of entering
                More
                 player commands.

* To enter an 0F (change tempo) command type, its level being the
  current Tempo, try clicking
  Tempo Operations window -> Insert Tempo Change.       Where?
```

1.28   Player Commands / Pitch, Volume and Generic Slides

```
                     HOW TO MAKE A PITCH SLIDE
INTRODUCTION
Player commands 01, 02 and 03 slide the pitch of a note up and
down. Their levels are quite difficult to enter accurately, so
OctaMED provides an easier way of making slides using the commands,
through the Edit menu's Pitch Slide item.

There are two types of pitch slide: Type 1, made with command 03,
and Type 2, made with command 01 or 02 (the former slides up, the
latter down). The difference is: on reaching the target note, Type
2 replays the target note, while Type 1 doesn't. Type 1 is often
the smoother of the two.

STEPS
1) Enter the starting note of the slide, in any track.
                How?
              2) In the same track, enter the ending (target) note of the slide.
               How?
              3) Move to somewhere between the two notes; this is where the  ←
                 pitch
               How?
                 slide will start.

4) Choose either type of pitch slide.
   > Edit menu -> Pitch Slide -> Type 1 (Cmd 3) OR
   > Edit menu -> Pitch Slide -> Type 2 (Cmd 1/2)
```

NOTES
* In Type 2 slides, the slide can start on the starting note; in
  other words, an acceptable place to move to in step 3 is the
  starting note of the slide. In Type 1 slides, an acceptable
  place is the ending note (but not the starting note).

         HOW TO MAKE A VOLUME OR OTHER SLIDE
INTRODUCTION
A common use of player command type 0C (set volume) is to fade a
note in or out, by entering the command all the way down a track
with gradually increasing or decreasing volume levels. This tedious
entering can be done automatically with the Volume Slide item.

In fact, a slide can be made with any command type. A tempo slide
(command 0F) to gradually slow the song down, perhaps? This slide
is created with Generic Slide. The two types of slide are made in
much the same way.

STEPS
1) Choose a player command type to be slid (or 0C for a volume
   slide), together with a starting and ending command level.

2) Enter the player command type with its starting level, in any
                 How?
                    track.

3) In the same track, enter the type with its ending level.
                 How?
                    4) Move to somewhere between the two player commands. Unlike with
   pitch slides, it doesn't matter exactly where you move to.

5) EITHER Make a volume slide (type 0C), respecting decimal volume
   levels if appropriate.
   > Edit menu -> Volume Slide

   OR Make a slide of any type. The levels are always hexadecimal.
   > Edit menu -> Generic Slide

NOTES
* If a player command type expects a signed hexadecimal level,   More
  Generic Slide makes a signed hexadecimal slide. It also handles
  Mix mode's stereo separation slides properly.

  Also, some player commands take each level digit separately as
  different values. For example, type 04 (vibrato) the 1st command
  level digit represents speed, the 2nd depth. These commands have
  their level digits slid independently of each other, so that
  (here) the vibrato speed and depth can be slid in one go.

  Basically, Generic Slide works with each player command type in
  a way in which you'd expect.

TIPS
* One use of Generic Slide is to repeat a single player command
  throughout a track. Just make the starting and ending levels

```
    identical.
```

1.29   Player Commands / How To Make A Note Echo

```
                          HOW TO 'ECHO' A NOTE THROUGHOUT A RANGE
INTRODUCTION
The Note Echo window takes a single note, and a marked range, and
echoes that note throughout the range using player command type 0C.
The volume is always halved with each echo, although the starting
volume may be set. The distance in lines between each echo and the
minimum echo volume are also variable.


STEPS
1) Enter a starting note on any track. If the note's starting
                  How?
                     volume should be different from its instrument's usual volume,  ←
                          More
   also enter an 0C player command type with a suitable level.
                  How?
                 2) Mark a range from the starting note to the end of the echo.
                  How?
                     (The echo may not necessarily extend all the way down the
   range). Edit menu -> Range Current Track is useful here.


3) Open the Note Echo window.
   > Edit menu -> Note Echo (right at the bottom)


4) If necessary, change the echo distance (e.g. 4 echoes every
   4th line) and minimum volume (the lowest volume level allowed
   in an echo).
   > Type a new value into Distance THEN
   > Type a new value into Minimum Volume


5) Create the echo.
   > Click Do Echo


NOTES
* In step 5, click Do Echo with Shift held down to make the echo
  and close the window.


* Echoed notes are only placed in empty note positions throughout
  the marked range.


* The range can span over one track, though this is rarely needed.
  In that case, ensure that there's a starting note on each track.
```

1.30   Player Commands / How To Set Decimal Or Hexadecimal Volumes

```
      HOW TO SET DECIMAL OR HEXADECIMAL VOLUMES
INTRODUCTION
Well, if you're obsessed with thinking like a computer, love the 16
times table, and wouldn't recognise sense if it beat you to a pulp,
```

you can even sacrifice the gift of one, just one, player command
that uses a decimal command level and use hex levels with type 0C!

Actually, using hex volumes can be handy if you often set the
volume to a quarter, half or three-quarters of full volume. These
levels in decimal are 16, 32 and 48; in hex, $10, $20 and $30.
Perhaps the latter looks slightly neater.

Whether OctaMED should read type 0C (set volume) levels in decimal
or hexadecimal is set in the Set Options window. To save you going
through your song painstakingly changing each decimal 0C level to
hex (or vice-versa), OctaMED can convert levels for you. Finally,
hexadecimal volume levels can set to be the default.

STEPS
1) Open the Song Options window.
   > Song menu -> Set Options

2) Tell OctaMED whether the levels used with player command type
   0C are in decimal or hexadecimal.
   > Set the cycle gadget under Other Options to Decimal Volumes or
     Hex Volumes

3) If necessary, convert existing volume levels of one type
   (decimal or hex) to the other type.
   > Click Convert THEN
   > Click Dec->Hex or Hex->Dec in the requester

4) If you wish, set hex volume levels to be the default.
   > Click Exit in the Song Options window
   > Settings menu -> Miscellaneous Options
   > Change Default Volume Mode from Decimal to Hex
   > Settings menu -> Save Settings [if required]   More

NOTES
* Just for the record, my volumes are set in hex. I possibly
  qualify in all three areas mentioned in the introduction ;-)

1.31   Player Commands / How To Set A Player Command To Do An ARexx Thing

      HOW TO SET A PLAYER COMMAND TO PERFORM AN AREXX FUNCTION
INTRODUCTION
Using the ARexx Trigger Setup window, OctaMED's ARexx commands can
be executed while playing a song, by assigning a player command to
an ARexx command. As in the Keyboard Shortcuts window and Input Map More
Editor, ARexx scripts, other programs' ARexx commands, and even   More
whole programs can all be executed by a single player command.

The facility to execute other programs' ARexx commands from precise
points within your song is potentially very powerful. In a
multimedia presentation, for example, certain graphics created by
another program could be synchronised with sound effects.

The player command type that executes ARexx commands is 2D. 255
different ARexx commands can be assigned, as there are 255 possible

command levels with type 2D ($01 to $FF), excluding level $00.

STEPS
1) Dream up a great ARexx command (of OctaMED or another program),
   ARexx script or program to be executed by a player command.

2) Open the ARexx Trigger Setup window.
   > Display menu -> ARexx Trigger Setup

3) Select the appropriate player command, from 2D01 to 2DFF.
   > Move the slider at the top of the window

   * Let go of the slider knob to see the action currently assigned
     to that player command, if any.

4) Assign an action to that player command in the Action area.   How?

NOTES
* Clear Current removes the action from the selected player
  command. Clear All removes the actions of all player commands.

1.32   Writing a Song / Real-Time Recording

                  HOW TO...

                   Record in 'real-time'
                  OVERVIEW
Real-time recording is a fancy name for entering notes while the
block is playing. In this way, you can compose music as you go
along, 'in time'. For example, if you already have a rhythm track
in a block, you could use real-time recording to add a melody
quickly. When you've finished, you can stop the block and correct
any mistakes you've made.

OctaMED provides a couple of features to aid real-time recording.
The most useful is the ability to reduce the song speed temporarily
by a third or a half.

1.33   Real-Time Recording / How To Record in `Real-Time'

                      HOW TO RECORD IN 'REAL-TIME'
STEPS
1) Move the cursor to the track where notes should be entered.
                How?
                2) Select the required instrument.   How?

3) Select the required keyboard octave range.
   > Set Main Control window -> Oct cycle gadget appropriately OR   Where?
   > Press F1 to F5   More

4) Ensure that Edit mode is on.
   > Switch on Main Control window -> Edit   Where?

5) Move to a few lines before the place where the first note will
   be entered, to give you a bit of introduction.

   * To enter notes from the start of the block, try pressing F9 to
     move to three-quarters of the way down the block.

6) Click Cont Block, and start entering notes in time to the music.

NOTES
* For those times when the music moves along too quickly to enter
  notes accurately, OctaMED provides a quick way of reducing the
  speed by a third or a half. Use the middle cycle gadget in the
  Tempo window. NRM plays at normal speed, while 2/3 and 1/2 play   Where?
  at two-thirds and half the normal speed.

* If you're quick off the mark, you might try the Delay feature. On
  clicking Main Control window -> D button (left of STOP), OctaMED
  waits for a note to be entered before continuing the block.

TIPS
* To ensure that your notes are entered in time, try creating a
  drum beat in an unused track. Just a bass drum every fourth line
  will do fine.

* Real-time recording is especially useful with MIDI. Step 3 above
  is not required. You could write an ARexx script to set up real-   How?
  time recording with MIDI, then use the Input Map Editor to   How?
  execute this script without leaving your MIDI keyboard.