

Introduction to MidiWriter*Pro*

MidiWriter*Pro* is an application that lets you compose polyphonic music on your Series 60 mobile phone. It supports General MIDI (GM) and uses the sounds built into the mobile phone for playback of instrument and percussion sounds. MidiWriter*Pro* can open most format 0 and 1 MIDI files, and save in either MIDI format 0 or 1. You can also merge MIDI files, and convert .RNG files to MIDI.

These instructions assume that you are familiar with both MIDI and operating the Series 60 range of mobile phones. Most of the menus and dialogs in MidiWriter*Pro* are consistent with the applications built into the phone.

MidiWriter*Pro* supports multiple instrument tracks and a drum track. Each track is assigned a MIDI channel number from 1 to 9 or 11 to 16. Each MIDI channel number can be assigned any 1 of 128 instruments, such as piano, violin, church organ, glockenspiel etc. You can assign the same MIDI channel number to more than one track, but all tracks with that channel number will play with the same instrument.

MIDI channel 10 is reserved for percussion/drum track.

This manual describes v1.05F of MidiWriter*Pro*.

Please contact support@zenobyte.com for updates and support regarding MidiWriter*Pro*

If you open a MIDI file in the MidiWriter*Pro* which was created with another application (for example Cubase), and then save it from MidiWriter*Pro*, it is possible some MIDI data (for MIDI functionality not support by MidiWriter*Pro*) in the file will be lost. Please make a copy of any existing MIDI files before opening them in MidiWriter*Pro*.

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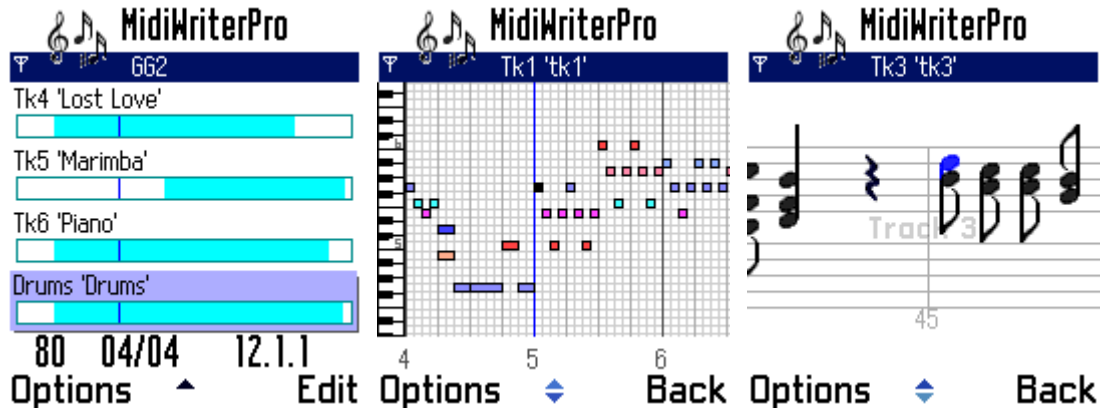
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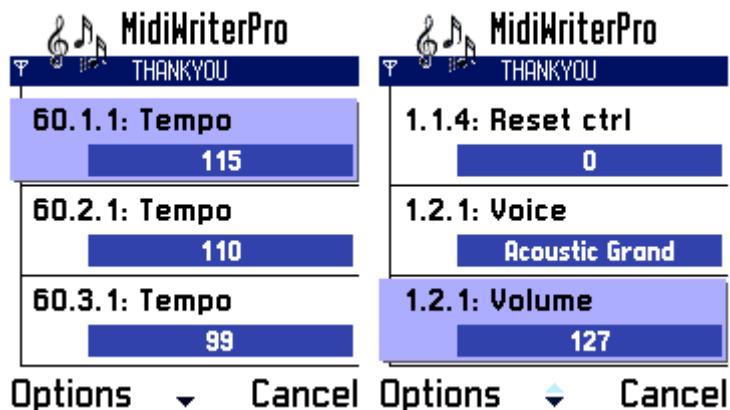
Web: www.zenobyte.com

MidiWriterPro views

There are three main views in *MidiWriterPro*, the 'Track', 'Key edit' and 'Score' views. These are described later in this manual.



There are also two 'list views' for showing tempo changes and MIDI control events. These views allow you to delete and change the parameters of the tempo and MIDI events.



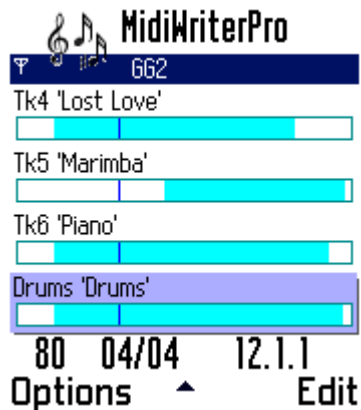
The bar and beat numbers are shown on the left with the event type on the right. In the current version of *MidiWriterPro*, the times of the events are displayed to the nearest beat, but are stored with the exact times originally set.

The data for the event is shown below the bar number and event type. To change the event data press the OK button or use the "Options: Change" menu (not all event types can be edited).

Events can be deleted using the 'C' key or "Options: Delete". Press 'Cancel' to abort any changes, or "Options: Done" to accept changes and return to the previous view. You can jump to specific points in the song using the "Options: Jump" menu.

Track view

This view shows all the tracks in the MIDI file. The cyan coloured bars represent the range of the track from the first note on to the last note off in that track. The outer rectangle represents the entire song duration. Muted tracks will be drawn in gray.



You can scroll through the tracks using the cursor up/down keys. If you have more than 4 tracks, the screen will scroll to show the other tracks.

Cursor left/right move along the track one quarter beat at a time - the movement speeds up the longer you hold the key. Shift cursor left/right moves on bar at a time.

At the bottom of the view are displayed the current tempo, time signature and bar/beat/quarter beat indicators. The tempo value will change to red if the tempo changes at the current cursor position.

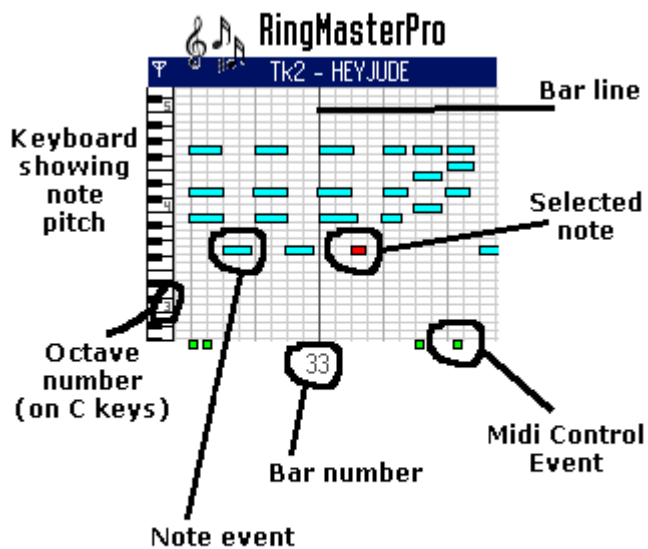
This view will be displayed when you first run *MidiWriterPro* and is used to configure and navigate around the tracks.

The 'Edit' button will take you to the 'Key edit' (piano roll) view for the selected track. You can also use the menu to change to the 'Score edit' (notation) view. If you work in the score view more often than the key edit view, you can use the *MidiWriterPro* Settings to change the action of this button to 'Score' rather than 'Edit'.

To return to the main track view from other views, press the 'Back' button.

Key edit (piano roll) view

The key edit view consists of a grid representing time and pitch. The horizontal represents time, and the vertical represents note number/pitch. The cyan blocks represent MIDI note events - the length of the block is the duration of the note. The vertical position of the note is the pitch of the note.



Screenshot of key edit view with a MIDI file loaded

The keyboard along the left side of the view is for identifying which musical note the events are. The small number indicates the octave, and is on every 'C' key. Middle C is identified by octave 5. You can change the number used to represent middle-C in the MidiWriterPro settings - valid values are 3, 4 or 5.

The red block is the currently selected note (the cursor position). The colour of the cursor note will depend on the colour you set for the cursor in the Settings dialog.

The green "MIDI control events" along the bottom of the grid are indicating channel volume changes, MIDI control changes, voice changes etc. These will be selected as you move the cursor past them. A green block indicates that there is one or more MIDI control event at that time slot. You can view and edit/delete control events using the "Events" list view.

The dark vertical line indicates the start/end of a bar. Each bar is split up into a number of smaller time slots indicating beats and quarter beats. The grid spacing can be set in the Settings dialog.

This view shows one track of the song at a time, to view the other tracks press "Previous track" or "Next track" hotkey (these are '2' and '3' by default). For details of re-configuring hotkeys see the "Keyboard assignment" section.

You can scroll up/down the octaves using the cursor up/down key. If you hold shift while using cursor up/down, the view will change by an octave.

Cursor left/right moves the cursor along the notes in the song. Holding down shift moves one bar at a time.

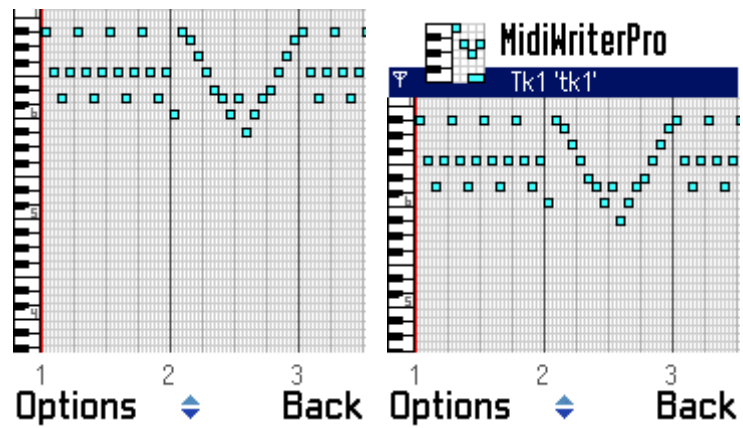
This view has 3 zoom levels, accessed by using the 'Zoom in' and 'Zoom out' menu options.

In this view, you can add, delete, move and change duration of notes. To do this, use the 0-9 and *# keys on the mobile phone. The keys are described in the key presses and shortcuts section later.

Full screen mode

To gain extra screen space, you can use the “View: Full screen” menu option. This will remove the status pane at the top of the view. This setting is remembered independently for each view.

This is most useful in the Key edit view as it allows a larger range of notes to be viewed.



Setting left and right markers

In the Key edit view you can set left and right markers. The markers can be used to cut/copy notes to the clipboard. The notes in the clipboard can then be pasted into other tracks, or into other parts of the same track. You can also jump to the left/right markers, or delete the marked notes using the 'C' key.

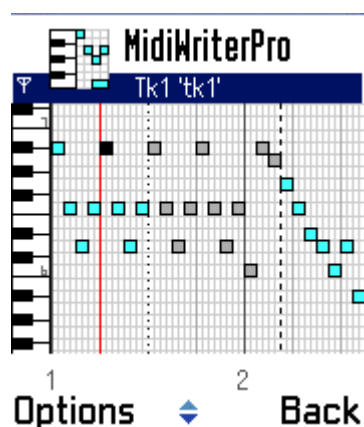
The notes between the left and right markers are drawn in gray.

If you position the cursor on one of the marked notes and use the move note up/down key presses, all the marked notes will be moved at the same time.

To move all the marked notes left/right, use the cut/paste option. (If this worked as for up/down, as you moved left/right some of the notes would move out of the marked range and stop moving. If the marked range moved to compensate, then other notes would enter the marked range and begin to move as well! Therefore you need to use cut/paste to move a range left/right).

Use "Edit: Clear markers" to clear the markers.

Use "Edit: Paste" to paste the clipboard at the cursor position: this mixes the notes at the cursor position. Use "Edit: Insert" to insert the clipboard, this will move the notes at the cursor position on in time to allow for the notes on the clipboard to be inserted.



Adjusting note velocities

To adjust note velocities use the "Song: Note velocity" menu, or for drum sounds, "Song: Drum velocity".

The "Drum velocity" option is only available for the drum track.

Selecting this option presents a dialog which the following information can be entered:

- Change velocity of
- Start at bar
- Number of bars to change
- Velocity at start
- Velocity at end

When setting drum velocity, the "Change velocity of" allows you to select which drum sound to change. For normal tracks, this allows you to select "Current track only" or "All tracks". "All tracks" does not affect the velocity of the drum track.

"Start at bar" and "Number of bars" determines the range over which the velocity of notes are changed. To change the entire song you can enter a high number into "Number of bars" if you are not sure of the bar count in the song.

"Velocity at start" and "Velocity at end" can be set to the same value to make the velocity constant over the range being changed. To make the velocity change over the range enter different numbers, for example to increase the velocity over 2 bars enter for example:

Start=1, Number bars=2, Velocity at start=32, Velocity at end=96

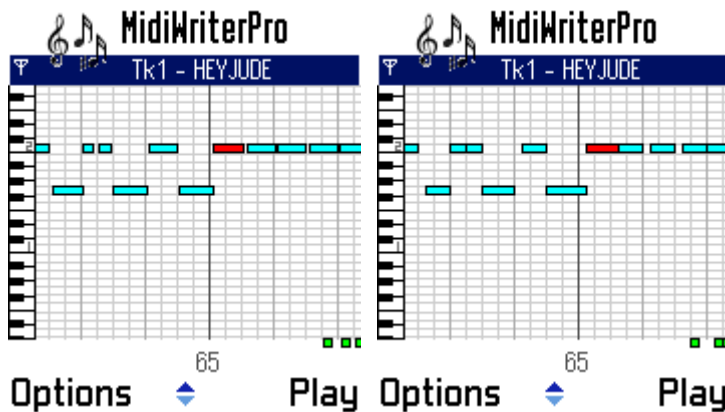
Quantizing

In order to display the musical notation of a song in the Score view, the song must be quantized. Quantizing will automatically adjust the start times and durations of all notes in the song to be multiples of 1/16th or 1/32th notes.

MidiWriterPro will prompt you to select 1/16th or 1/32th when you use the Quantize menu option, or if you change to the score view without having used Quantize.

The effects of quantizing is shown below:

Before and after quantizing:



Note that after quantizing the start and end of the notes are 'snapped' to the nearest 1/32th note (in this screenshot the lines are at 1/16th spacing, so some notes are snapped to be in between the grid lines).

Quantizing to 1/32th will not have any effect on songs created in MidiWriterPro, because it currently only supports editing notes to an accuracy of 1/32th.

Quantizing to 1/16th will generally improve the music displayed in the score view, but may make a noticeable change on the music. If in doubt, save the song before quantizing so you can revert.

MidiWriterPro will not alter the timing of any notes and events unless you use the quantize option or switch to the score view. However, if you change the start time or duration of any note it will be snapped to 1/32th – a later release may support positioning notes at any time (it was thought editing would be easier on a small mobile phone keyboard if the notes snapped to place).

Score edit (notation) view

The score view displays the MIDI file in musical notation, as shown here.



Options  Back

The currently selected note (cursor position) will be drawn in the cursor colour (shown blue in this screenshot) you have set in the settings dialog. You can scroll along the music using cursor left/right, and shift cursor left/right moves one bar at a time.

Cursor up/down moves between the tracks.

Before you can use the score view, you must quantize the song as described in the previous section. You do not need to quantize the song if it was created on *MidiWriterPro*, because *MidiWriterPro* only allows you to create notes of start time and duration rounded to the nearest 1/32th note.

In this view you can add, delete, move and change duration of notes and rests. The key presses are the same as in the Key edit view – see the key presses and shortcuts section later in the manual. Some of the keys work slightly differently in this view, for example when changing the duration of a note rather than the duration changing by 1/32th it changes to the next valid note type (ie a crotchet changes to a dotted crotchet or minim when increasing the duration).

Opening files

Use the "File: Open" menu to open MIDI files (format 0 and 1 supported only) or .RNG files. This will display a file browser view as shown here.



Use the 'Up' button to navigate up a level, and press the cursor button to navigate into the selected folder. To open a file, select the file to be opened and press the cursor button.

The current path is displayed at the top of the view.

Press the 'C' key to delete a file or folder. A folder can only be deleted if it is empty.

Press cursor left and right to change to a memory card, or to display the contents of the ROM (there are some MIDI files built into the phones ROM which can be opened in *MidiWriterPro*).

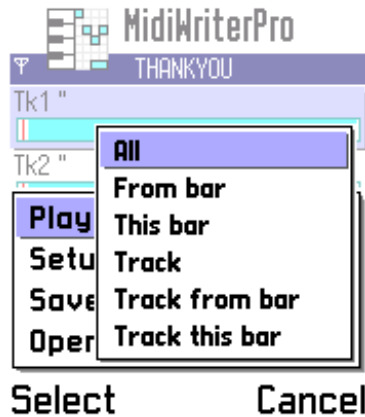
Press 'Exit' to return to *MidiWriterPro* without opening a file.

The file open dialog shows the `\nokia\sounds\digital\` folder by default, which is where digital sound files are stored on most UK Series 60 phones. You can change this folder in the Settings dialog if your Series 60 phone uses a different location for storing music files.

You can of course set any folder you like: but by storing them in the phones standard folder your music will show up in the other music applications on the phone.

Playing music

To play back the current song or track, press the cursor button or use the "Options: Play" menu



The following options are available:

- All – plays all tracks from the beginning
- From bar – plays all tracks from a specific bar
- This bar – plays all tracks, current bar only
- Track – plays the selected track from the beginning
- Track from bar – plays selected track from a specific bar
- Track this bar – plays selected track, current bar only

To stop playback, press the cursor button and select "Stop"

Note that there maybe a slight pause between selecting "Play" and playback starting. This is because the music has to be saved as MIDI so the phones operating system can play it.

Song properties

To change the properties of the entire song, use the "Song: Properties" dialog. This defaults to the values shown in the screen shot below:



The tempo is the speed of the song in beats per minute. This defaults to 120. You can change the tempo at any point in the song using the "Modify: Change tempo" menu. The tempo indicator in the Tracks view changes to red on the beat where the tempo changes.

Edit tempo changes use the "View: Tempos" menu. This will list all tempo changes, which you can then delete or change the tempo of. Note that this list does not show the tempo set in the song properties dialog, only the tempo changes in the song.

The 'Key signature' defaults to C major and 'Time signature' to 4:4 timing.

If you change the key signature, you will then be prompted as to whether you want to transpose the notes in the song. If you select 'Yes', all notes in the song will be changed to match the change in the key signature.

You can also transpose a song using semi-tones using the Transpose menu.

Setting up tracks

When you first start *MidiWriterPro*, or after using the "File: New" menu, *MidiWriterPro* creates two empty tracks and a drum track.



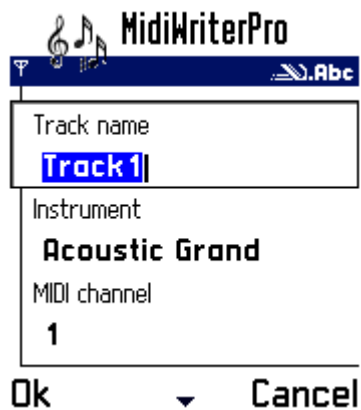
120 04/04 1.1.1
Options ▼ Edit

By default, track 1 is assigned to MIDI channel 1, and track 2 to MIDI channel 2.

The first thing you need to do is assign instruments to the tracks. To do this use the "Song: Track setup" menu. You will see the following screen, showing that Track 1 is MIDI channel 1, 'Acoustic Grand (Piano)', and Track 2 is MIDI channel 2, also 'Acoustic Grand'.



To change the settings for a particular track, select the track using the cursor up/down keys and press the OK/Select button. This will then display the following screen allowing you to alter the track settings.

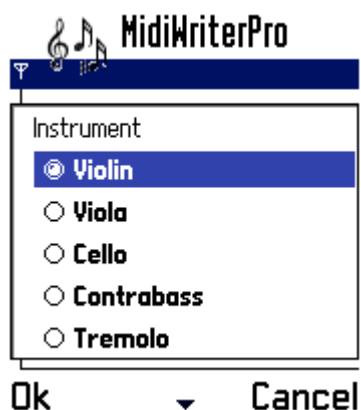


From the above screen you can set the track name, the instrument, the MIDI channel number, the channel volume and copyright information. The black arrow at the bottom is the scroll bar and indicates that there are more settings off the bottom of the screen – use the cursor keys to navigate to these.

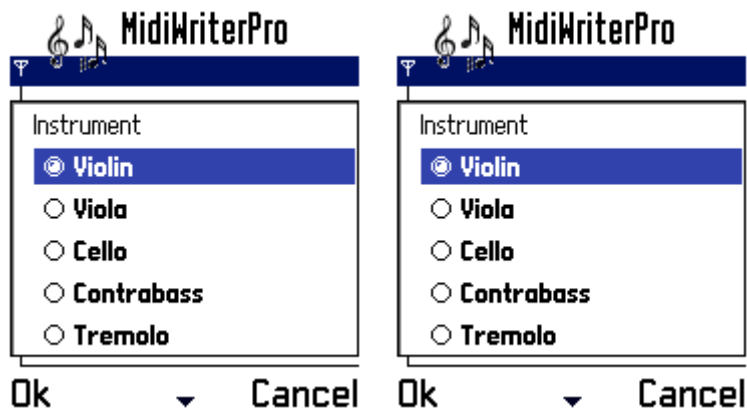
The channel volume can be set from 0 (off) to 127 (loudest). The default value is 127.

The Channel number can be set from 1 to 16 (with the exception of 10 which is reserved for percussion).

To change the instrument, select the line and then use cursor left/right to scroll through the 128 instruments available. To find an instrument quickly, you can also press the OK/Select button to display the following screen:



From the above screen you can select the instrument category from one of 16 available categories. Each category has 8 instruments. You can use the OK/Select button on either of the above two lines to display lists as shown.

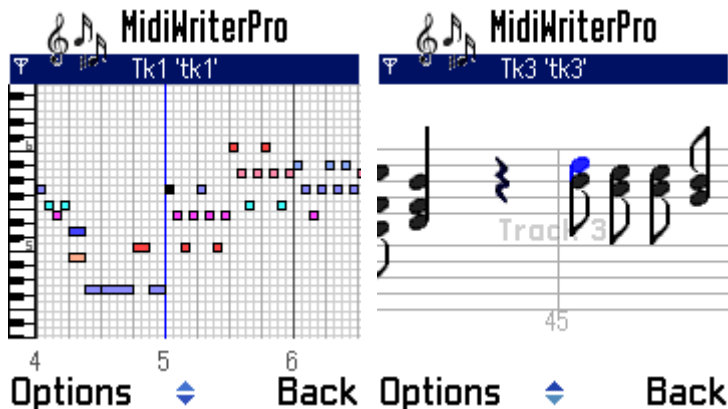


If you wish, you can enter some copyright text into the track setup dialog as shown here. **Important! Copyright text cannot be changed once you have saved and re-opened the song.** You can use the *MidiWriterPro* Settings dialog to enter default copyright text: this is then entered into every new song and track you create in *MidiWriterPro*.



Once you have set up the instruments for the tracks, you are ready to start creating music!

Creating music



Music can be created and edited in either the score (notation) view or the key edit (piano roll) view.

From the main track view, press 'Edit' button to change to the key edit view, or use the menu and select 'Edit score' to switch to the score view. If you have changed the MidiWriterPro 'Preferred view' setting to 'Score edit', then the button will change to the score view and you will need to use the menu to change to the key edit view.

If you press the OK/Select button, a context sensitive menu pops up with the following options:

- Play
- Insert note
- Insert rest (*notation view only*)
- Add note
- Edit events

'Insert note' will insert a new note after the currently selected item, and insert rest inserts a rest. In the key edit view, 'Add note' will add a note, which is useful if you do not want all the following notes to move on in time. 'Add note' is only available in the score view when you have a note selected: it adds a note at the same time and duration as the selected note.

In the score view, the duration of the note/rest inserted depends on the application preferences, as does the position on the staff that notes are inserted at.

A further 'Make chord' option is available if there is currently only one note at the position of the selected note, and this will add two notes to make a chord, a quick way of adding two further notes.

Any MIDI events (such as volume changes or instrument changes) are shown as small 'm' below the staff in score view, and as a green block at the bottom of the key edit view. Use the "Edit events" menu to edit MIDI events. The event list view will appear with the cursor at the event nearest to the cursor position.

To delete the selected note or rest use the 'C' key. This removes the note: in the score view a rest may appear to avoid affecting the timing of the song. To remove notes completely press shift-C. In the score view, you also need to use shift-C to remove a rest. All following notes will be moved back in time to compensate for the duration of the item being removed.

The instrument and volume of a given track is set in the set up dialog (see previous section, Setting up tracks). You can also change the volume, instrument or tempo of a track at any point in the track using the "Modify: Voice change", "Volume change" or "Tempo change" menu.

In the score view, bar lines will automatically appear as you enter new notes. The bar lines appear according to the time signature set in the Song properties dialog, and defaults to every 4 beats.

Editing individual notes

Editing notes varies slightly between the score and key edit views.

In the score view, the following editing functions are available. The keys used can be changed in the settings dialog, the keys shown here are the default assignments:

- * - halves the note duration and moves all following notes back
- 0 - normal/dotted/double dotted and moves all following notes back
- # - doubles the note duration and moves all following notes on
- 1 - moves the note up the stave
- 4 - moves the note down the stave
- 7 - inserts a new note
- 8 - adds a new note (if a note is selected)
- 9 - inserts a rest

If you hold down the shift key when using * 0 or # the following notes will not be affected. Rests will be inserted as required to avoid changing the song timing. If you hold down shift key when using 1 and 4, all notes at the same start time will be moved up/down, this is useful for moving chords.

In the key edit view, the functionality is slightly different for some keys as follows:

- * - decreases the note duration by the 'Grid snap' setting
- 0 - does nothing
- # - increases the note duration by the 'Grid snap' setting
- 9 - does nothing
- 5 - moves the note back by the 'Grid snap' setting
- 6 - moves the note forwards by the 'Grid snap' setting

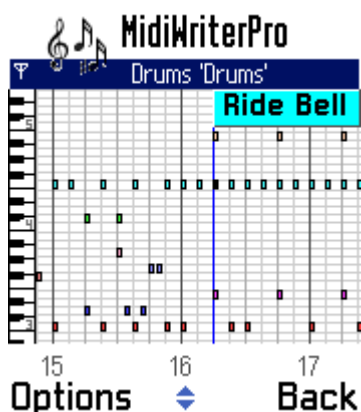
In the key edit view, the following notes are not affected by the above changes. If you hold down shift key, the following notes will be moved to take into account any changes you make. This is opposite of the score view.

Drum tracks, re-mapping and deleting drums

All drum sounds are stored within one track, the 'Drum' track. This appears as the last track in the main Tracks view and can only be edited in the key edit/piano roll view. It is not possible to view the percussion track in the score view.

In the percussion track each note produces a different drum sound, for example, middle-C produces a 'Hi bongo' sound. In the current version of *MidiWriterPro*, drum editing is done in the key edit view. A later version of *MidiWriterPro* will include a dedicated drum editing view.

Because of the small screen size of the phone, it is not possible to list the drum sounds at the left of the screen. To make it easier to find the drum sounds, whenever you move a note up/down the grid (ie changing it's note number and hence the drum sound), the drum sound will appear at the top right of the screen as shown here:



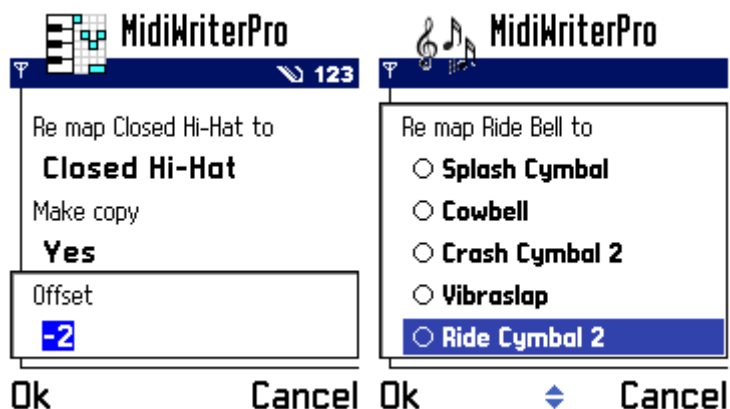
If you leave the cursor on a note for 1.5 seconds, the drum sound for that note will also appear. This is useful if you wish to identify what drum sound a particular note is.

Drum notes are normally of fixed length, but you can change the length as with normal tracks using * and #. This can affect the quality of the sound on Series 60 phones, for example, some cymbal sounds may sound better if you lengthen the note (using #)

Re-mapping drum sounds

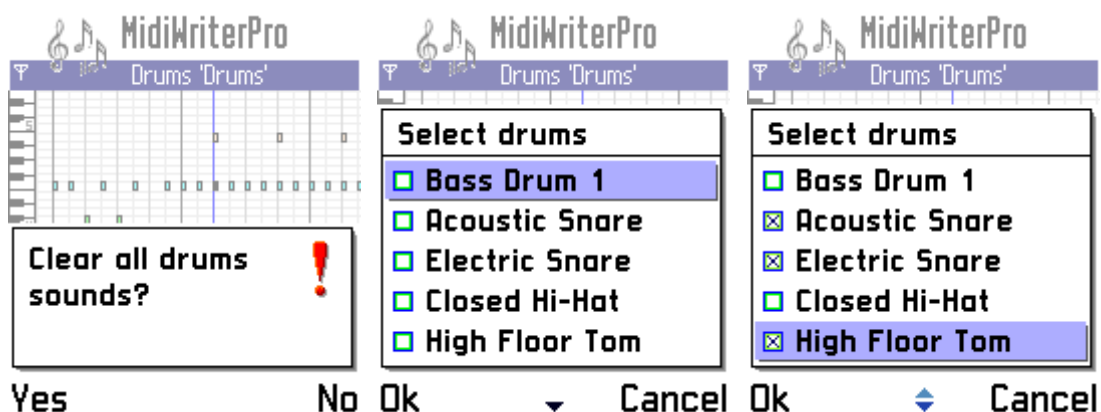
If you wish to change all the notes for a particular drum sound to another sound, select any one of the notes for the drum sound to be re-mapped and use the 'Track: Re-map drum' menu option. This option only appears when you have a note selected in the drum track.

You can also *copy* a drum sound by setting "Make copy" to 'Yes'. Optionally the copied notes can be offset by a number of 1/32th notes, determined by the value of 'Offset'. The value of Offset can be -ve or +ve.



Deleting drum sounds

To clear the entire drum track, use the "Track: Clear" menu. You will be prompted to clear all drum sounds. If you select **No**, you can then select which drum sounds to clear.

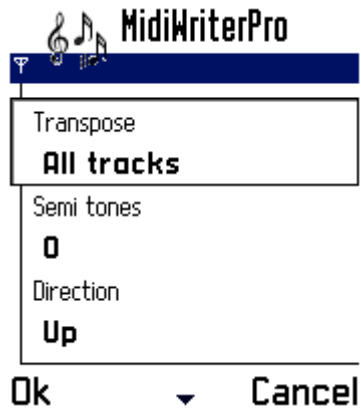


To select the drum sounds to clear, press the select button (press the phones cursor/joystick button) to mark the drum sound with an 'x'. Press again to clear the 'x'. Press **Ok** once you have selected all the sounds to be cleared.

Transposing tracks or song

You can transpose (change the key) of the song using the "Song: Properties" menu. Change the key signature to the required key and press OK, and then press Yes to "Adjust notes to new key?"

You can also change the key of a song in semi tones using "Track: Transpose"



In this dialog you can set:

- Transpose "Current track" or "All tracks"
- Semi tones (0 to 24)
- Direction ('Up' or 'down')

If "Transpose" is set to "All tracks", a further option is available, "Adjust key signature". This will change the key signature set in the Song properties dialog to match the transpose.

In the current version of *MidiWriterPro*, all tracks have the same key signature.

Deleting bars

The copy and delete bar options are only available in key edit and score views.

To **delete** one or more bars use the "Track: Delete bar(s)" menu.

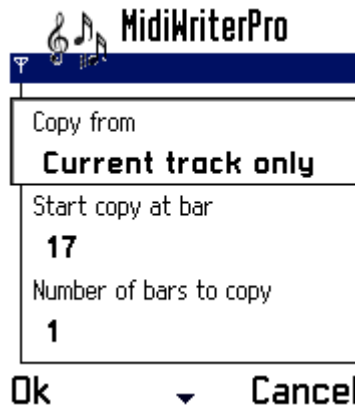


Enter the following information and press "Ok"

- Delete from 'Current track only' or 'All tracks'
- Delete from bar number
- Number of bars to delete

Copying and repeating bars

To **copy and repeat** one or more bars, use "Track: Copy bar(s)" menu. You can copy one or more bars, and insert them at any point into the same or different track of the same type (you cannot copy to/from percussion to normal tracks). You can also specify a number of times to repeat the bars being copied.



Enter the following information and press "Ok"

- Copy from 'Current track only' or 'All tracks'
- Start copy at bar
- Number of bars to copy
- Insert copied bars at bar
- Times to repeat copied bars
- Insert into track

The "Insert into track" option is not available in the following situations:

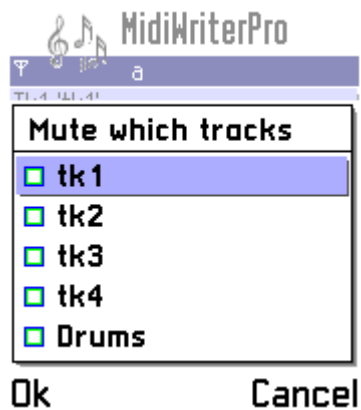
- When 'All tracks' is selected
- When only one track exists
- When copying from the drum tracks

It is not possible to copy from normal to the drum track

Muting tracks

Muting tracks is useful if you only want to play back specific tracks to hear how they sound together.

Use the "Song: Track mute" menu option.



To select the tracks to mute, press the select button (press the phones cursor/joystick button) to mark the track with an 'x'. Press again to clear the 'x'. Press **Ok** once you have selected all the tracks to be muted.

Muted tracks appear in grey in the 'Tracks' view and will not play when playing all tracks. You can still play a muted track using the 'Play: Track' menu.

Application settings

Using the "Settings" menu, you can change how various functions in *MidiWriterPro* work.

The settings are split into 4 categories:

- General settings
- Notation settings
- Piano roll settings
- Key assignment

General settings

Digital folder

This determines what folder (NB: not what drive) your music is saved in. This defaults to `\nokia\sounds\digital\`. You may need to change this on non-English phones, or if your Series 60 phone stores digital sounds in a different location.

Cursor colour

This sets the colour of the cursor (the selected note/rest/item)

Scroll when playing

If set to yes, the music will scroll when playing the song from *MidiWriterPro*. The highlight will show the note as close to the note being played back as possible. The accuracy may vary from phone to phone.

Preferred view

This can be set to 'Key edit' or 'Score edit' and determines which view is assigned to the right hand key on the phone. The other view can then be accessed from the menu.

Load previous song

This determines whether *MidiWriterPro* automatically loads the previous song when you re-start the application.

Default copyright

The text entered here will be automatically inserted into every new song and track you create using *MidiWriterPro*.

Score settings

Insert new notes at and New notes duration

These two options determine the duration of new notes & rests, and where on the stave new notes are inserted at.

Key edit settings

Grid spacing

This determines the duration of each grid line in the key edit view.

Grid snap

This determines the snap point when moving and changing duration of notes in key edit view.

Middle C position

This sets the octave number used for middle C. Valid values are 3, 4 or 5.

Note event colour and Midi event colour

This set the colours used for note and MIDI events in the piano roll view. Make sure the colours you use are different from the cursor colour set in the General settings!

If you select 'Pitch colours' for the note event colour, each note is drawn in a colour which represents the note (C, C#, D etc). In this setting, the selected note is always drawn in black, and not the colour set for the cursor. 'Velocity colours' will draw each note in a colour representing the velocity of that note.

Key assignment

This lets you change what the 0 - 9, * and # keys do. To change a particular function, select the function and then press the key you want to assign that function to. You can only assign functions to the phones 12 keypad keys.

MidiWriter*Pro* key presses and shortcuts

At any time you can press and hold the Shift key to change the action of the phones left/right soft-keys. The action of the keys reverts to normal when you let go of Shift.

During playback of songs in any view, you can press * and # to change the volume of the playback. This does not affect the volume stored in the MIDI file.

NB: Some of the key presses below can be changed using the Settings dialog. If you change the keys for decrease/increase note lengths, it will also affect the keys that change the playback volume.

In 'Track' view

- Cursor left/right moves in beats
- Shift-cursor left/right jumps a bar at a time

In "Key edit" view

- Cursor up/down scrolls the view
- Cursor left/right moves along the track
- * - Reduces the duration of the selected note
- # - Increases the duration of the selected note
- 1 - Moves the current note up
- 4 - Moves the current note down
- 5 - Moves the note left
- 6 - Moves the note right
- 7 - Inserts a new note (moves following notes on)
- 8 - Adds a note (doesn't affect following notes)
- 2 - selects previous track
- 3 - selects next track
- C - Deletes selected note (doesn't affect following notes)
- OK - Displays a context sensitive menu

When used with the shift key, the key presses are:

- Cursor up/down scrolls by one octave
- Cursor left/right moves by one bar
- * - As above but moves following notes back
- # - As above but moves following notes on
- 1 - Moves all notes at the same start time up
- 4 - Moves all notes at the same start time down
- 5 - As above but moves following notes back
- 6 - As above but moves following notes on
- C - Deletes selected note and moves following notes back

In "Edit score" view

- Cursor up/down changes the track displayed
- Cursor left/right moves along the notes
- * - Reduces the duration of the selected note and moves following notes back
- # - Increases the duration of the selected note and moves following notes on
- 1 - Moves the current note up
- 4 - Moves the current note down
- 7 - Inserts a new note (moves following notes on)
- 8 - Adds a note (doesn't affect following notes)
- 2 - Selects previous track
- 3 - Selects next track
- C - Deletes selected note (doesn't affect following notes)
- OK - Displays a context sensitive menu

When used with the shift key, the key presses are:

- Cursor left/right moves by one bar
- * - As above but does not move following notes back
- # - As above but does not move following notes on
- 1 - Moves all notes at the same start time up
- 4 - Moves all notes at the same start time down
- C - Deletes selected note and moves following notes back

MidiWriter*Pro* menu functions

The menu options available depend on which view you are in, and which track is selected

In the 'Track' view the menu functions are:

File	
Open	Opens MIDI & .RNG files
Save	Saves the file as MIDI format 0 or 1 (1 is the default)
New	Clears the current song
Merge	Merges in another MIDI or .RNG file
Find all	Scans the entire phone for all MIDI files
Jump to	
Bar	Jumps to a specified bar in the current track
Start	Jumps to the start of the track
End	Jumps to the end of the track
Song	
Properties	Configures time/key signature and tempo
Track setup	Configures channels and instruments for the tracks
Track mute	Mutes/de-mutes tracks
Quantize	Quantizes the notes/events (see Quantizing section)
Track	
Setup	Configures channel and instrument for selected track
New	Adds a new track
Clear	Clears the current track
Delete	Deletes the current track (drum track cannot be deleted)
Duplicate	Clones the current track (not available for drum track)
Transpose	Transposes the current or all tracks
View	
Score	Changes to score view
Key edit	Changes to key edit view
Events	Changes to MIDI events list view
Tempos	Changes to tempo changes list view
Modify	
Voice change	Inserts a voice change at the current cursor point
Volume change	Inserts a volume change
Tempo change	Inserts a tempo change

Play	
All	Plays the entire song
From bar	Plays the entire song from a given bar
This bar	Plays the entire song, current bar only
Track	Plays the current track
Track from bar	Plays the current track from a given bar
Track this bar	Plays the current track, current bar only
Send	Sends the song via bluetooth or infrared
Settings	Opens the settings dialog
Register	Available when un-registered
About	
Exit	Closes the application

MidiWriter*Pro* menu functions in key/score edit views

In the key and score views the menu functions are similar to those in the 'Tracks' view, with the following additions:

File	Only 'Save' is available
Track	
Copy bar(s)	Copies one or more bars
Delete bar(s)	Deletes one or more bars
Re-map drum	Re-maps a drum (only when a note is selected in the drum track)
Modify	
Add note	Adds another note
Insert note	Inserts a note
Make chord	Adds notes to the selected note to make a chord*
Edit	<i>Edit menu not available in Score view</i>
Left marker	Sets left marker to cursor position
Right marker	Sets right marker to cursor position
Clear markers*	Clears the left/right markers
Copy*	Copies the notes between left/right marker to clipboard
Cut*	Cuts the notes
Paste*	Pastes the clipboard to the current cursor position
Insert*	Inserts the clipboard at the cursor position

Note: Items marked * are context sensitive and only appear when they can be used. If a particular menu option does not appear, then it normally means it cannot be used for the track or view you have selected

Instrument categories and sounds

The following categories of instruments are available when setting up tracks (other than the drum track). Note that the sounds are built into the phone, the quality of the sound is not due to *MidiWriterPro*.

Instrument categories:

1. Piano
2. Chromatic Percussn
3. Organ
4. Guitar
5. Bass
6. Strings
7. Ensemble
8. Brass
9. Reed
10. Pipe
11. Synth Lead
12. Synth Pad
13. Synth FX
14. Ethnic
15. Percussive
16. Effects

Each category is further split into 8 instruments, as detailed on the next page.

The categories are further split into instruments as follows:

Piano category: Acoustic Grand Bright Acoustic Electric Grand Honky-tonk Electric 1 Electric 2 Harpsichord Clavi	Percussion: Celesta Glockenspiel Music Box Vibraphone Marimba Xylophone Tubular Bells Dulcimer	Organ: Drawbar Percussive Rock Church Reed Accordion Harmonica Tango Accordion	Guitar: Acoustic (nylon) Acoustic (steel) Electric (jazz) Electric (clean) Electric (muted) Overdriven Distortion Harmonics
Bass: Acoustic Electric (finger) Electric (pick) Fretless Slap 1 Slap 2 Synth 1 Synth 2	Strings: Violin Viola Cello Contrabass Tremolo Pizzicato Orchestral Harp Timpani	Ensemble: String 1 String 2 SynthStrings 1 SynthStrings 2 Choir Aahs Voice Oohs Synth Voice Orchestra Hit	Brass: Trumpet Trombone Tuba Muted Trumpet French Horn Brass Section SynthBrass 1 SynthBrass 2
Reed: Soprano Sax Alto Sax Tenor Sax Baritone Sax Oboe English Horn Bassoon Clarinet	Pipe: Piccolo Flute Recorder Pan Flute Blown Bottle Shakuhachi Whistle Ocarina	Lead: Square Sawtooth Calliope Chiff Charang Voice Fifths Bass+lead	Pad: New age Warm Polysynth Choir Bowed Metallic Halo Sweep
Fx: Rain Soundtrack Crystal Atmosphere Brightness Goblins Echoes Sci-fi	Ethnic: Sitar Banjo Shamisen Koto Kalimba Bag pipe Fiddle Shanai	Percussive: Tinkle Bell Agogo Steel Drums Woodblock Taiko Drum Melodic Tom Synth Drum Reverse Cymbal	Effects: Guitar Fret Breath Seashore Bird Tweet Telephone Helicopter Applause Gunshot

Drum sounds

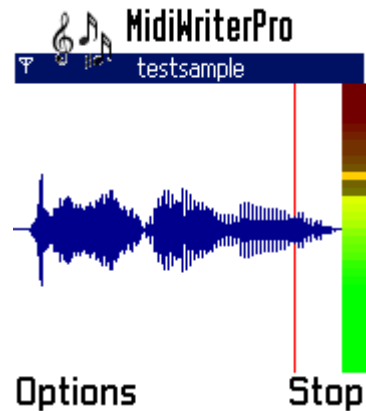
The following 47 GM drum sounds can be used in the drum track.

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	

Additional features

Please visit www.midiwriter.com for information on plug-ins available to add additional features to *MidiWriterPro*

There is currently one additional plug-in available for Nokia 3650, 7650 and n-gage phones which adds a Sample editing view to *MidiWriterPro*. This allows you to edit sound samples.



Information on using these additional features is provided when you download the plug-in.

The sample editing add-on integrates seamlessly with *MidiWriterPro* and becomes part of the same application.