Music Gadgets
PalmOS Edition

User Guide

ã2003 Jana Software

Welcome to the Music Gadgets – PalmOS Edition user guide. This quick-start user guide is designed to get you up and running with Music Gadgets, explaining some of the powerful features of this software package.

Contents

For more information or to purchase this product please visit:

http://www.janasoftware.com

1. Introduction

Music Gadgets is a collection of 12 indispensable tools for musicians gathered together in one handy package.

Group 1 - Tools

- ❖ Metronome
- ❖ Tuner
- ❖ Stopwatch
- ❖ Transposer
- ❖ Piano Keyboard

Group 2 - Calculators

- ❖ Time Calculator
- ❖ Song Duration Calculator
- ❖ Delay Calculator

Group 3 - Reference

- ❖ Pitch / MIDI / Frequency Chart
- ❖ Key Signature Reference
- ❖ Diatonic Chords Reference
- ❖ Chord Reference

2. Licence Agreement and Warranty

Music Gadgets – PalmOS Edition

Copyright © 2003 Jana Software

All Rights Reserved

Please read the following terms and conditions carefully before using this software. Your use of this software indicates your acceptance of this licence agreement and warranty.

Licence Agreement

One registered copy of Music Gadgets – PalmOS Edition may either be used by a single person who uses the software personally on one or more computers, or installed on a single workstation used non-simultaneously by multiple people, but not both.

You may access Music Gadgets – PalmOS Edition through a network provided that you have obtained individual licenses for the software covering all workstations that will access the software through the network.

Disclaimer of Warranty

THIS SOFTWARE AND THE ACCOMPANYING FILES ARE SOLD "AS IS" AND WITHOUT WARRANTIES AS TO PERFORMANCE OR MERCHANTABILITY OR ANY OTHER WARRANTIES WHETHER EXPRESSED OR IMPLIED.

NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS OFFERED.

ANY LIABILITY OF THE SELLER WILL BE LIMITED EXCLUSIVELY TO PRODUCT REPLACEMENT OR REFUND OF PURCHASE PRICE.

3. Installation & System Requirements

System Requirements

A Palm Pilot or similar device running Palm OS version 3 or later.

Quick Installation Instructions

1. Uninstall any previous versions of Music Gadgets

2. Install the following file in the usual manner:

   - musicgadgets.prc

Detailed Installation Instructions

If you have already installed a previous version, please make sure that you uninstall it before installing this version.

To uninstall an older version of Music Gadgets:

1. Tap the Applications icon

2. Tap the Menu icon

3. Select the 'Delete' option from the 'App' menu

4. Select 'M-Gadgets' and then tap the 'Delete…' button

5. You will be asked to confirm this action – tap 'Yes'

6. Tap the 'Done' button to finish

To install Music Gadgets:

1. Copy the file:

   - musicgadgets.prc

   to the add-on folder in your Palm Desktop directory on your computer.

2. Double-click the Palm Desktop icon on your desktop (or select this from the 'start' menu)

3. Click install.

4. In the User drop-down list, select the name that corresponds to your Palm Device.

5. Select both files mentioned in (1) then select 'Done'

6. The next time you perform a HotSync, Music Gadgets will be installed.
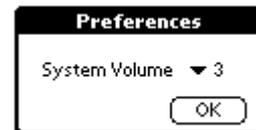
4. The Basics, Preferences and Favorites
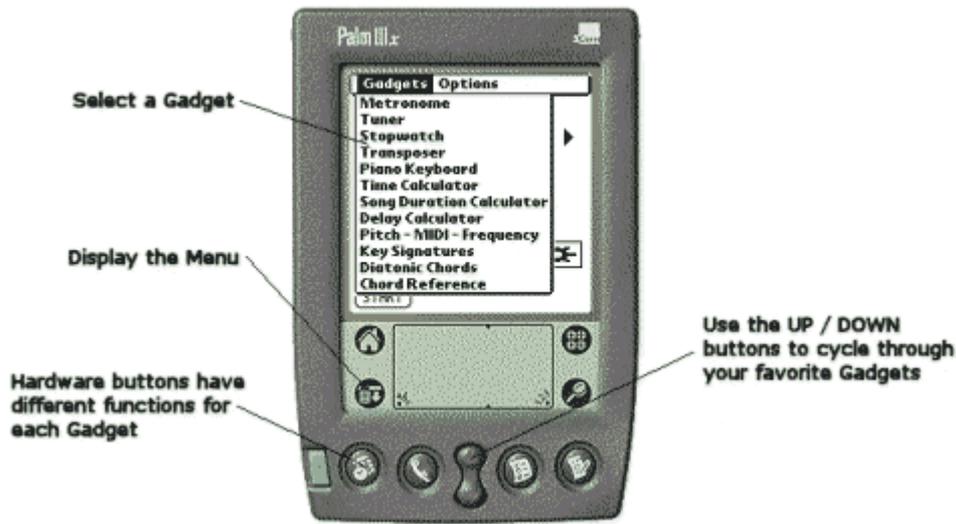
Gadgets Menu

Use this to select any of the 12 Gadgets

Options Menu

Preferences

This displays the preferences dialog box. The only preference is to set the level of the system volume – system sounds are used by the Metronome, Tuner, and Piano Keyboard Gadgets.

Please Note: System volume is only currently supported by some PalmOS 5 devices and this setting may have no effect on your handheld.

My Favorites

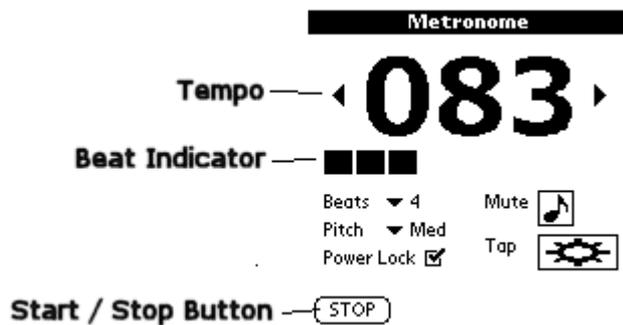Use this dialog to specify which Gadgets can be cycled through using the UP / DOWN hardware buttons

Reset All

Music Gadgets remembers your last use settings every time you exit the program. This option resets all program settings to the factory defaults.

About M-Gadgets and Purchase

Displays contact, version and purchase details

5. Metronome

Tempo

Displays the current tempo in beats per minute (BPM). Tap and hold the increase/decrease arrows either side of the tempo display to change the tempo.

Beat Indicator

A visual indicator to show the pulse and current beat. Useful when used in conjunction with the Mute button and in noisy situations.

Beats

Select the number of beats in the bar. This governs the number of 'blocks' shown in the beat indicator and also the performance of the beep output (the first beat in each bar is played at an higher pitch). If you do not wish to use this feature, select 'None'.

Pitch

Selects the pitch of the beep output.

Power Lock

If this is checked the system 'Auto-off after' power saving setting is disabled. This stops the Palm device shutting down after a preset period of time. Please note that this setting affects the Metronome Gadget only.
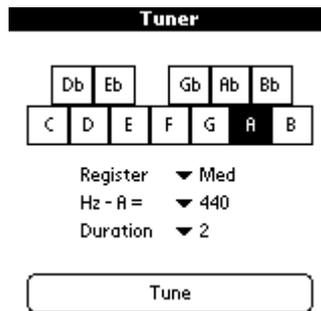
Mute

Turns the beep output on or off.

Tap

Tap this area repeatedly, in time, to set the tempo. This feature is useful for easily finding out the tempo of a piece of music.

Start / Stop Button

Starts or stops the metronome

6. Tuner

Select Note

Select the tuning note that is to be played.

Register

Select the octave of the tuning note.

Hz – A

Select the base frequency of the tuning notes in Hertz. In most cases you will set this to the standard of A = 440 Hz. You may find this function useful if you need to tune to a recording or instrument (such as an acoustic piano) that is slightly out of tune.

Duration

Select the length of the tuning note in seconds.

Tune

Play the tuning note.

7. Stopwatch

Current Date and Time

The current date and time are displayed at the top of the screen.

Stopwatch

The current duration in the format: Hour : Minutes : Seconds : 1/100s Second
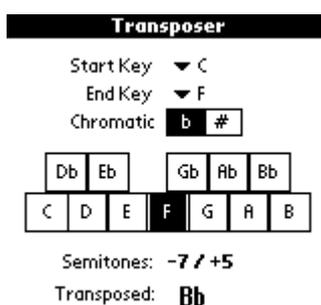
Start / Stop

Starts or stops the stopwatch.

Reset

Resets the stopwatch to 00:00:00:00

Power Lock

If this is checked the system 'Auto-off after' power saving setting is disabled. This stops the Palm device shutting down after a preset period of time. Please note that this setting affects the Stopwatch Gadget only.

8. Transposer

Start Key & End Key

Sets the original and transposed keys. If you are not sure about which key the piece of music is in set 'Start Key' to 'C' and use the chart below to help you find the chart below to help you set the destination key

Chromatic

Sets display to sharps or flats

Note Buttons

Click on the appropriate button to set the start note

Semitones

Displays the number of semitones between the start and end keys, both below and above.

Transposed

Displays the start note transposed to the final key.

Intervals Chart

Interval (Up)	End Key if Start Key is C	Semitones Up	Semitones Down
Unison	C	0	0
Minor 2nd	C#/Db	1	11
Major 2nd	D	2	10
Minor 3rd	D#/Eb	3	9
Major 3rd	E	4	8
Perfect 4th	F	5	7
Aug 4th/ Dim 5th	F#/Gb	6	6
Perfect 5th	G	7	5
Minor 6th	G#/Ab	8	4
Major 6th	A	9	3
Minor 7th	A#/Bb	10	2
Major 7th	B	11	1

9. Piano Keyboard

Piano Keyboard
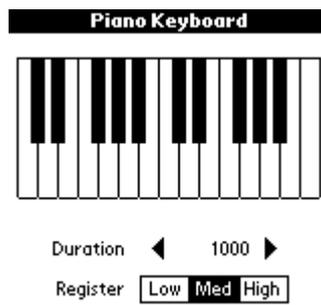
Keyboard

Tap anywhere on the keyboard to play a note

Duration

Length of the note in milliseconds. 1000 milliseconds = 1 second

Register

The octave of the note

10. Time Calculator
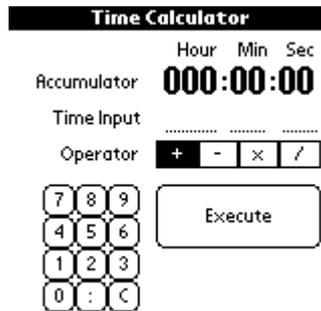
Time Calculator

	Hour	Min	Sec
Accumulator	**000** : **00** : **00**		

Time Input   ....

Operator   [+] [-] [×] [/]

[7] [8] [9]
[4] [5] [6]   [Execute]
[1] [2] [3]
[0] [:] [C]

To add time

- If the accumulator is not clear (reads 000:00:00), tap 'C'
- Set the operator to +
- Enter the initial time using either 'Graffiti' or the numeric keypad
- Tap 'Execute' to move the time into the accumulator
- Enter the second time
- Tap 'Execute' to add the first time to the second time

To subtract time

- If the accumulator is not clear (reads 000:00:00), tap 'C'
- Set the operator to +
- Enter the initial time
- Tap 'Execute' to move the time into the accumulator
- Set the operator to -
- Enter the second time
- Tap 'Execute' to subtract the second time from the first time

To multiply time

- If the accumulator is not clear (reads 000:00:00), tap 'C'
- Set the operator to +
- Enter the initial time
- Tap 'Execute' to move the time into the accumulator
- Set the operator to *
- Enter a decimal number
- Tap 'Execute' to multiply the time in the accumulator by the decimal number

To divide time

- If the accumulator is not clear (reads 000:00:00), tap 'C'
- Set the operator to +
- Enter the initial time
- Tap 'Execute' to move the time into the accumulator
- Set the operator to /
- Enter a decimal number
- Tap 'Execute' to divide the time in the accumulator by the decimal number

11. Song Duration Calculator

Song Duration Calculator

No. of Beats		‹	4 ›	
No. of Bars	« ‹		8 ›	»
BPM	« ‹		120 ›	»
Duration	« ‹	00:00:16 ›		»

Each of the parameters are continuously variable which means that you can alter any of them and adjustments are instantly made to the others:

- No. of Beats – number of beats in each bar
- No. of Bars – total number of bars in the song
- BPM – tempo in beats per minute
- Duration – length of the song in hours:minutes:seconds

Use the single arrows to make small changes and the double arrows to make large changes.

If you adjust No. of Beats, No. of Bars or BPM then Duration is recalculated.

If you adjust Duration then BPM is recalculated.

12. Delay Calculator

Delay Calculator

BPM « ‹ **120** › » Tap

1/2	1000	ms
1/4	500	ms
1/4T	333	ms
1/8	250	ms
1/8T	166	ms
1/16	125	ms
1/16T	83	ms
1/32	62	ms
1/32T	41	ms

This Gadget can be used to help you set the delay time of a digital delay so that the delay repeats are in time with the song. Enter the tempo of the song using the arrows or the 'tap' area. The delay settings corresponding to the current tempo are displayed.

Note Duration Names

Fraction	US Name	UK Name
1/2	Half Note	Minim
1/4	Quarter Note	Crotchet
1/4 T	Quarter Note Triplet	Crotchet Triplet
1/8	Eighth Note	Quaver
1/8 T	Eighth Note Triplet	Quaver Triplet
1/16	Sixteenth Note	Semiquaver
1/16 T	Sixteenth Note Triplet	Semiquaver Triplet
1/32	Thirty Secondth Note	Demisemiquaver
1/32 T	Thirty Secondth Note Triplet	Demisemiquaver Triplet

## 13. Pitch / MIDI / Frequency Chart

Pitch - MIDI - Frequency

Pitch	MIDI	Frequency
C 3	60	261.626
C# 3	61	277.183
D 3	62	293.665
D# 3	63	311.127
E 3	64	329.628
F 3	65	349.228
F# 3	66	369.994
G 3	67	391.995
G# 3	68	415.305
A 3	69	440.000
A# 3	70	466.164
B 3	71	493.883

Reference chart showing equivalent note/octave, midi note number and frequency in Hertz. Use the arrows to move through the chart.

Note: Middle C is C3 or Midi Note Number 60

14. Key Signature Reference

Eb major / C minor
3 flats - Bb, Eb, Ab
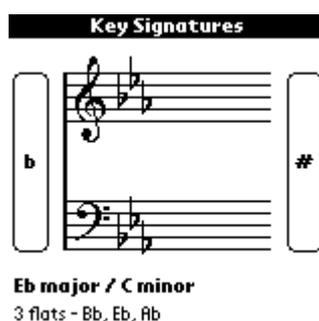
For each key signature this Gadget displays:

- ❖ A Grand Stave (both treble and bass clefs
- ❖ Major and relative minor keys
- ❖ Number of sharps/flats
- ❖ Names of sharps/flats

Use the b and # buttons to move through the key signatures.

Changing the key signature in this Gadget also changes the key in the Diatonic Chord Reference Gadget allowing you to quickly move between a key signature and the chords in that key.

15. Diatonic Chords Reference
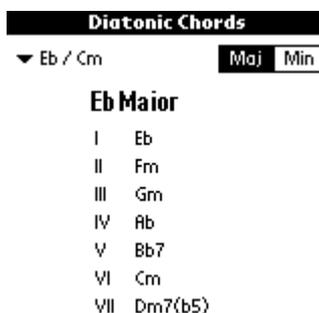
Shows the diatonic chords in a key. Tap on the inverted triangle to display a menu from which you can choose the key. Use the 'Maj' 'Min' options to swap between the major key and its relative minor key.

Roman Numeral	Scale Degree
I	Tonic
II	Super Tonic
III	Mediant
IV	Sub Dominant
V	Dominant
VI	Sub Mediant
VII	Leading Note

16. Chord Reference

Chord Reference

▼ D ▼ maj9(#11)

Formula	Note
1	D
3	F#
5	A
7	C#
9	E
#11	G#

Click on the first inverted triangle to display a menu of root notes

Click on the second inverted triangle to display a menu of chord qualities (chord types)

The notes within the selected chord are displayed as a formula (scale degrees) and note name.

17. Hardware Button Functions

Tool	Button 1	Button 2	Button 3	Button 4
Metronome	Decrease Tempo	Increase Tempo	Tap	Start/Stop
Tuner	Decrease Note	Increase Note	Tune	Tune
Stopwatch	Start / Stop	Reset	-	-
Transposer	-	-	-	-
Piano Keyboard	-	-	-	-
Time Calculator	-	-	-	-
Song Duration Calculator	-	-	-	-
Delay Calculator	Decrease Tempo	Increase Tempo	Tap	-
Pitch / MIDI / Frequency Chart	-	-	-	-
Key Signature Reference	Decrease Key (b)	Increase Key (#)	-	-
Diatonic Chords Reference	-	-	-	-
Chord Reference	-	-	-	-

18 . Purchasing this software

The full version of this software costs $14.95 (USD). It has no time limitation or reminder screens.

Upon purchasing you will emailed a 'registration key' – this is a short code that you enter into the first screen to 'unlock' the software.

You may buy this software online using your credit card and in certain countries by sending a check to a local office by postal mail.

Payment is accepted in a wide range of currencies including US Dollars, Euros, GB Pounds, AUS dollars etc.

For more information about registering and for a link to the secure server for credit card payments please go to:

www.janasoftware.com/register.htm

If you require any assistance with registering or require more information about **Music Gadgets**, please email your query to:

info@janasoftware.com