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(54) Title: A METHOD FOR SYNTHESIZING TIME-SENSITIVE RING TONES IN COMMUNICATION DEVICES

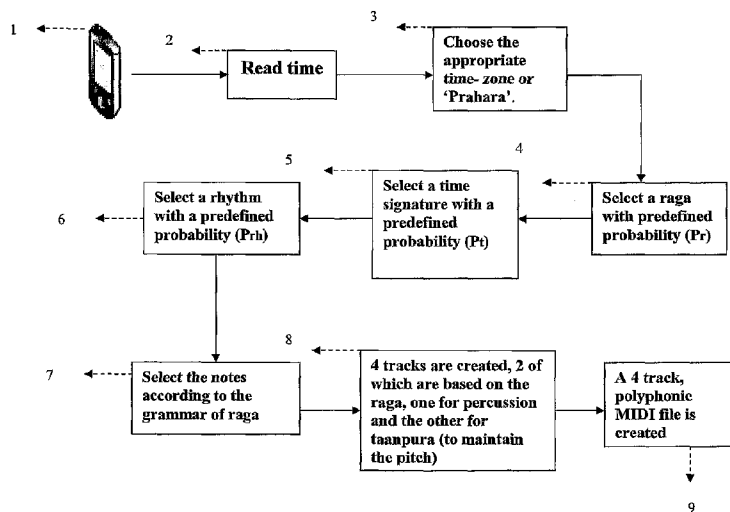


Figure 1

(57) Abstract: The present invention proposes a method for synthesizing time-sensitive ring tones in communication devices. This invention puts forth a recursive method that generates a new tune associated with various functions of mobile devices, at user-defined time intervals. By making the generation of tunes dynamic and using a permutation of various classical notes, different tunes can be generated, thus ameliorating the problems presented by prior art. Further, the user is able to record their likes or dislikes thereby outweighing the likelihood of a little liked tune being played too often. This invention finds its application in the area of ring-tones for cellular phones, amongst several other applications.

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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
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B. FIELDS SEARCHED		
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPODOC, WPI, TXTnn		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/126014 A1 (NISHITANI Y., et.al.) 12 September 2002 (12.09.2002) <i>abstract.</i>	1 - 20
	--	
A	US 5451709 A (MINAMITAKA J.) 19 September 1995 (19.09.1995) <i>abstract.</i>	1 - 20
	--	
A	EP 0604081 A1 (NOKIA MOBILE PHONES LTD) 29 June 1994 (29.06.1994) <i>the whole document.</i>	1 - 20
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 18 February 2009 (18.02.2009)		Date of mailing of the international search report 1 April 2009 (01.04.2009)
Name and mailing address of the ISA/ AT <b>Austrian Patent Office</b> Dresdner Straße 87, A-1200 Vienna Facsimile No. +43 / 1 / 534 24 / 535		Authorized officer <b>SEYRINGER C.</b> Telephone No. +43 / 1 / 534 24 / 329

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5753843 A (FAY C.T.) 19 August 1998 (19.08.1998) <i>the whole document</i>	1 - 20
	--	
A	US 6928410 B1 (MARILA J., et.al.) 9 August 2005 (09.08.2005) <i>the whole document</i>	1 - 20
	--	
A	US 7006622 B2 (LAIME P.) 28 February 2006 (28.02.2006) <i>the whole document</i>	1 - 20
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US A 2002126014		US A1 2002126014	2002-09-12
		GB A 2375430	2002-11-13
		JP A 2002251186	2002-09-06
US A 5451709		US A 5451709	1995-09-19
		JP A 5181409	1993-07-23
		JP A 5181408	1993-07-23
EP A 0604081		EE A 9400444	1996-06-17
		US A 5452354	1995-09-19
		EP A1 0604081	1994-06-29
		FI B 92450B	1994-07-29
US A 5753843		WO A1 9624422	1996-08-15
		US A 5753843	1998-05-19
US A 6928410		CN A 1353413	2002-06-12
		JP A 2002196779	2002-07-12
		US B1 6928410	2005-08-09
US A 7006622		US A1 2003128834	2003-07-10