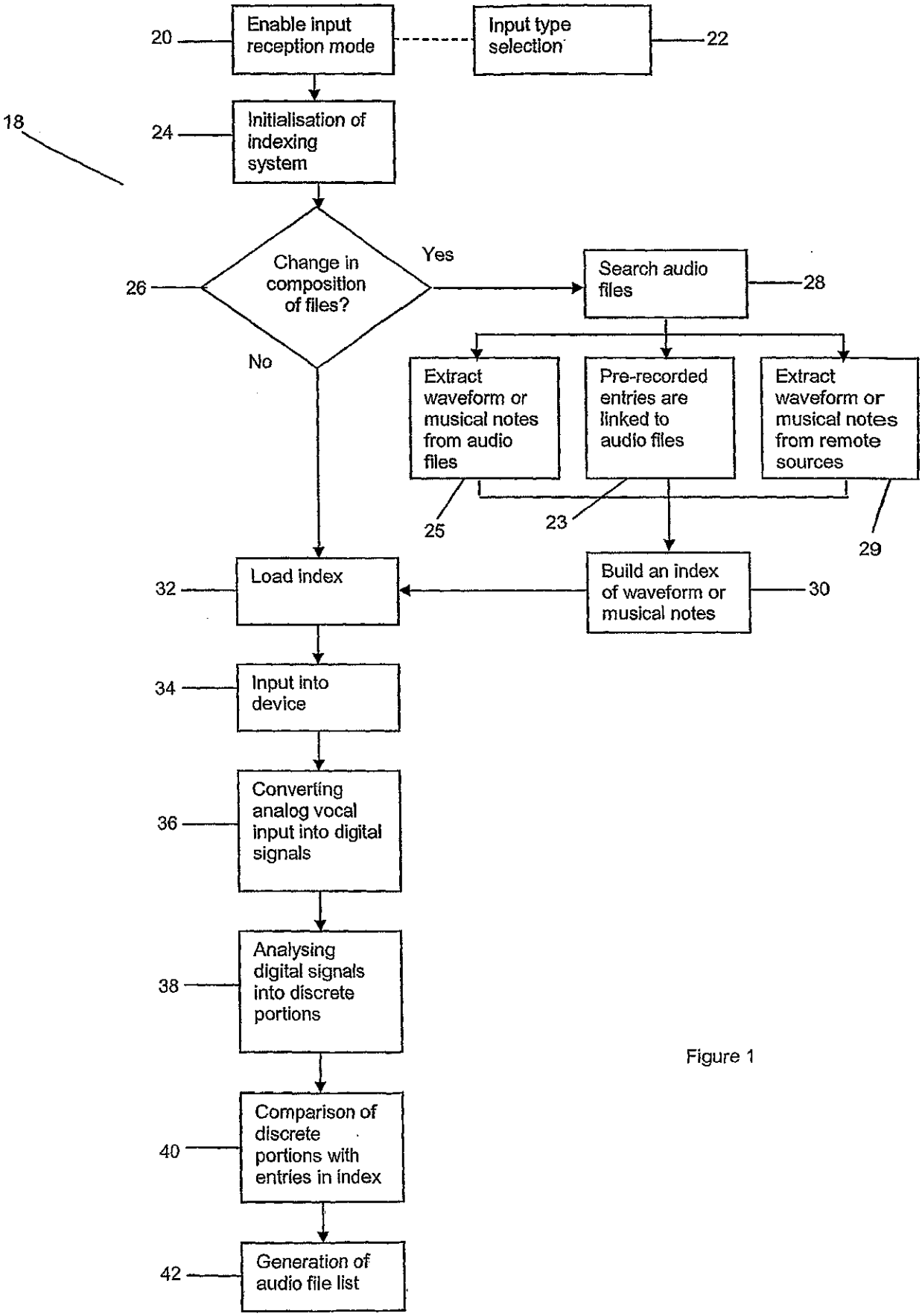

18
20
Enable input reception mode
Input type selection
22
24
Initialisation of indexing system
26
Change in composition of files?
Yes
No
Search audio files
28
Extract waveform or musical notes from audio files
Pre-recorded entries are linked to audio files
Extract waveform or musical notes from remote sources
25
23
29
32
Load index
Build an index of waveform or musical notes
30
34
Input into device
36
Converting analog vocal input into digital signals
38
Analysing digital signals into discrete portions
40
Comparison of discrete portions with entries in index
42
Generation of audio file list

Figure 1

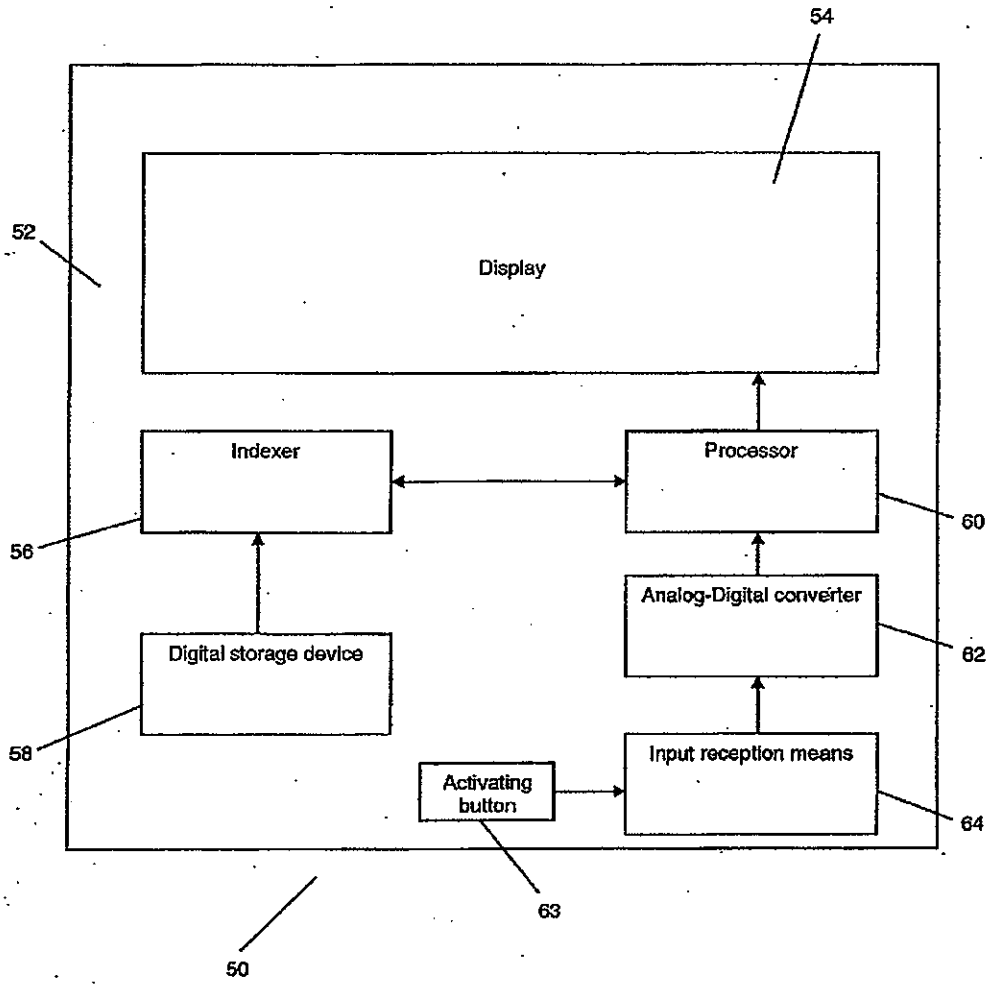

54
52
Display
Indexer
Processor
60
56
Analog-Digital converter
62
Digital storage device
58
Input reception means
Activating button
64
63
50

Figure 2

Musical Notes	Do	Re	Mi	Re	Do
Pitch (Midi Key Value)	60	62	64	62	60
Δ Pitch(current) – Pitch(previous)	0	2	2	-2	-2
1st Order Melody Contour (UDR) U: (Δ) > 0; R: (Δ) = 0; D: (Δ) < 0;	R	U	U	D	D
ΔΔ |Δ(current)| - |Δ(previous)|	0	2	0	0	0
2nd Order Melody Contour (udr) u: (ΔΔ) > 0; r: (ΔΔ) = 0; d: (ΔΔ) < 0;	r	u	r	r	r

Figure 3

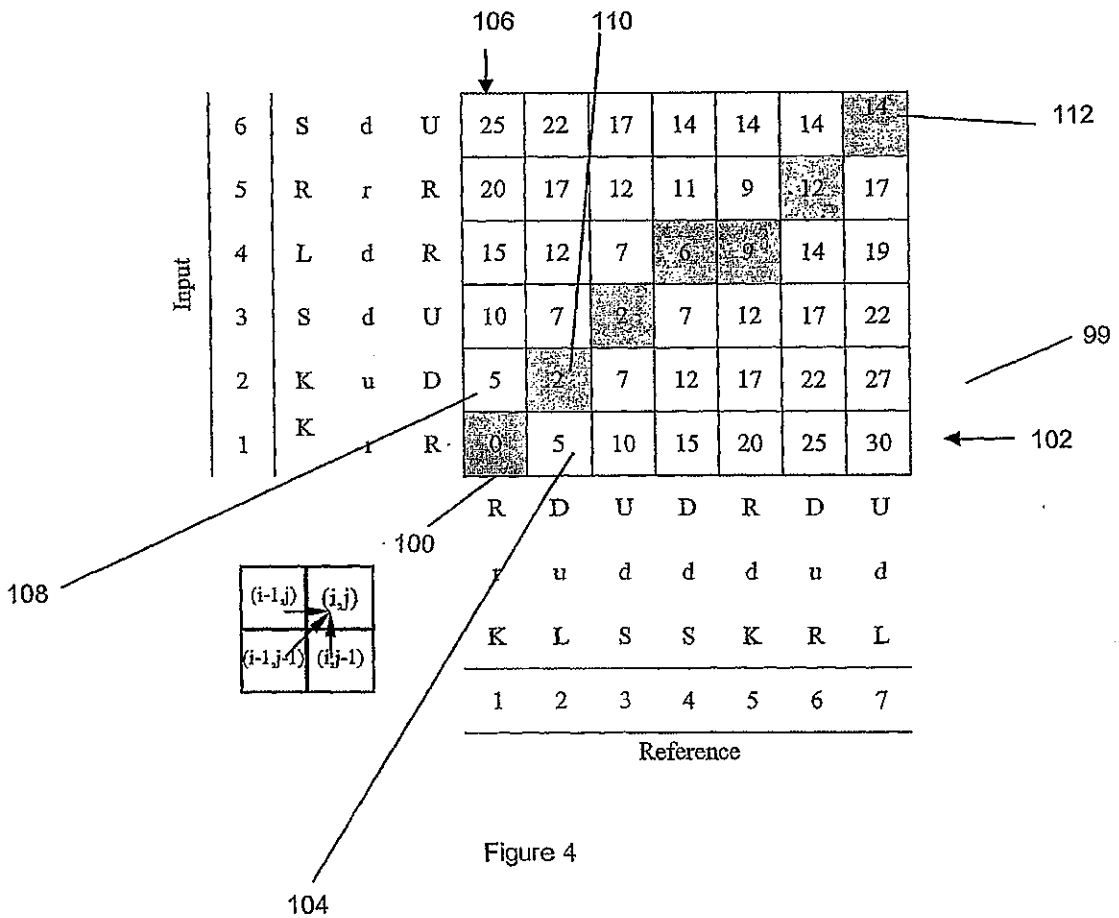


Figure 4

Musical Notes	Do	So	La	So	Do
Pitch (Midi Key Value)	60	67	69	67	60
Δ Pitch(current) – Pitch(previous)	0	7	2	-2	-7
1st Order Melody Contour (UDR) U: (Δ) > 0; R: (Δ) = 0; D: (Δ) < 0;	R	U	U	D	D
ΔΔ |Δ(current)| - |Δ(previous)|	0	7	-5	0	5
2nd Order Melody Contour (udr) u: (ΔΔ) > 0; r: (ΔΔ) = 0; d: (ΔΔ) < 0;	r	u	d	r	u

Figure 5