



Patent Search & Analysis Report (PSAR)

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Part - I : PATENT SEARCH TECHNIQUE USED

Patent Search Database Used : Google Patents
Keywords Used for Search : controller,sensor,musical instrument
Search String Used : -
Number of Results/Hits getting : 9

Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

Category/Field of Invention :
Invention is Related to/Class of Invention : Musical instrument
Title of Invention : Position-based controller for electronic musical instrument
Patent No. : US 5541358 A
Application No. : US 08/037,924
Date of Filing/Application : 26/03/1993
Priority Date : 26/03/1993
Publication/Journal Number - (Issue No. of Journal in which Patent is published) :
Publication Date : 22/07/1994
First Filled Country :
Also Published as

Country	Patent No

Applicant for Patent is : Individual



GTU - Prior Art Search

- INVENTOR DETAIL

Name of Inventor	Address/City/Country of Inventor
Wheaton James A	Fairfax CA
Wold Erling	El Cerrito CA
Sutter Andrew J	Los Angeles CA

- APPLICANT/ASSIGNEE DETAIL

Name of Applicant/Assignee	Address/City/Country of Applicant
Yamaha Corporation	Japan



Part - III : TECHNICAL PART OF PATENTED INVENTION

Limitation of Prior Technology/Art :

Electronic musical instruments have greatly broadened the range of musical parameters that may be controlled by a performer. Frequently, however, this additional control is effected by the use of devices that demand additional virtuosity of the performer. Not only basic instrument-playing skills, but the added ability to simultaneously monitor computer display screens, regulate foot switches or pedals and manipulate joysticks, sliders, wheels or other paraphernalia with hand motions unrelated to conventional playing technique may be required as a result.

Specific Problem Solved/Objective of Invention :

system offers a more natural type of control, since many types of musical instrument can easily be played as the performer changes his or her location within the performance area. The present invention gives the performer the flexibility to make gradual changes in musical parameters, and permits effects to be held without the necessity of inappropriate or continuous motion.

Brief about Invention :

A performance unit is provided that is freely movable within a three-dimensional performance region. Control circuitry is used to detect a position of the performance unit with respect to a reference point in the performance region and to generate a position signal. The position signal may be used as the basis either for generating a musical tone by an electronic musical instrument or for controlling a device that imparts an effect to, or otherwise controls a parameter of, a musical tone output from a musical instrument.

Key Learning Points :

A performance unit controlled by a performer that is freely movable within a three-dimensional performance region which includes said performance unit and said performer.

Position-detecting means for setting a reference point within the performance region, detecting an absolute position of the performance unit in the performance region with respect to said reference point, and generating a position signal ; and

musical tone generating means for generating a musical tone based on such position signal.

Summary of Invention :

The present invention is directed to a system that controls musical parameters based on a performer's or instrument's position within the performance space, thereby avoiding many of the drawbacks described above. Such a system offers a more natural type of control, since many types of musical instrument can easily be played as the performer changes his or her location within the performance area. The present invention gives the performer the flexibility to make gradual changes in musical parameters, and permits effects to be held without the necessity of inappropriate or continuous motion.

Number of Claims : 50

Patent Status : Granted Patent

How much this invention is related with your IDP/UDP? : Other

Do you have any idea to do anything around the said invention to improve it? :

Just using its concept.