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(54) **APPARATUS AND METHOD FOR AN ADDITIONAL CONTENTS DISPLAY OF AN OPTICAL DISC PLAYER**

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(51) **Int. Cl.**
G06F 7/00 (2006.01)

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(58) **Field of Classification Search** 707/526, 707/536, 104.1, 736, 755; 345/467, 471
See application file for complete search history.

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Assistant Examiner — Michael Le
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(57) **ABSTRACT**

[This invention relates to a character display apparatus and method for a DVD (Digital Versatile Disc) player. According to the present invention, it is provided that font data of at least some of multi-languages to be used in multilingual subtitle processing are recorded on certain area(s) of a DVD, the recorded font data are stored in a font memory at initial stage of playback, the stored font data corresponding to a language selected by selection input of a user are then read, characters for subtitle processing of the selected language are displayed. Therefore, the manufacturing cost of DVD players can be reduced due to the reduction of memory capacity requied and DVDs can be maximum efficiently utilized.] *A character display apparatus for an optical disc player, and which includes a detection and separation unit to detect recorded data including a first font data from an optical disc, and to separate the first font data from the detected recorded data, a memory to store the first font data output from the detection and separation unit, a character generation unit to generate character signals for characters of a selected language for a subtitle by using the first font data stored in the memory, and a controller coupled to the character generation unit, to cause the character generation unit to generate the character signals for the characters of the selected language for character subtitle processing selected from multiple languages to be used in the character subtitle processing on the basis of the first font data. Further, the first font data is downloaded from the optical disc and stored in the memory such that the stored first font data is separate from the characters of the selected language before the character generation unit generates the characters of the selected language.*

22 Claims, 3 Drawing Sheets

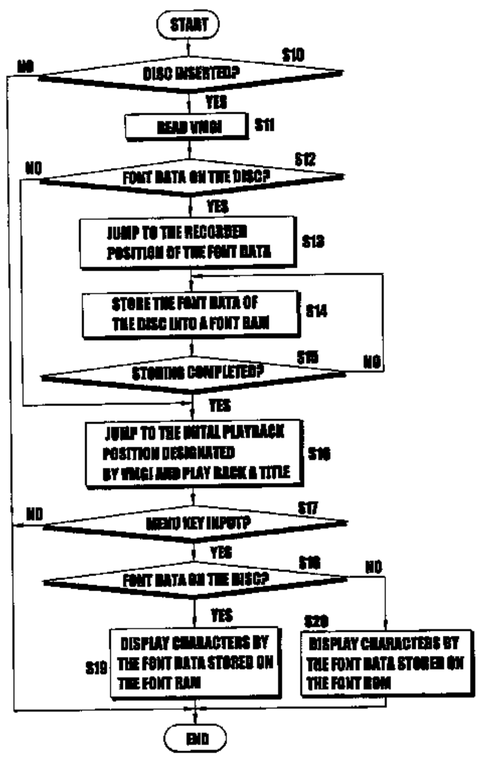

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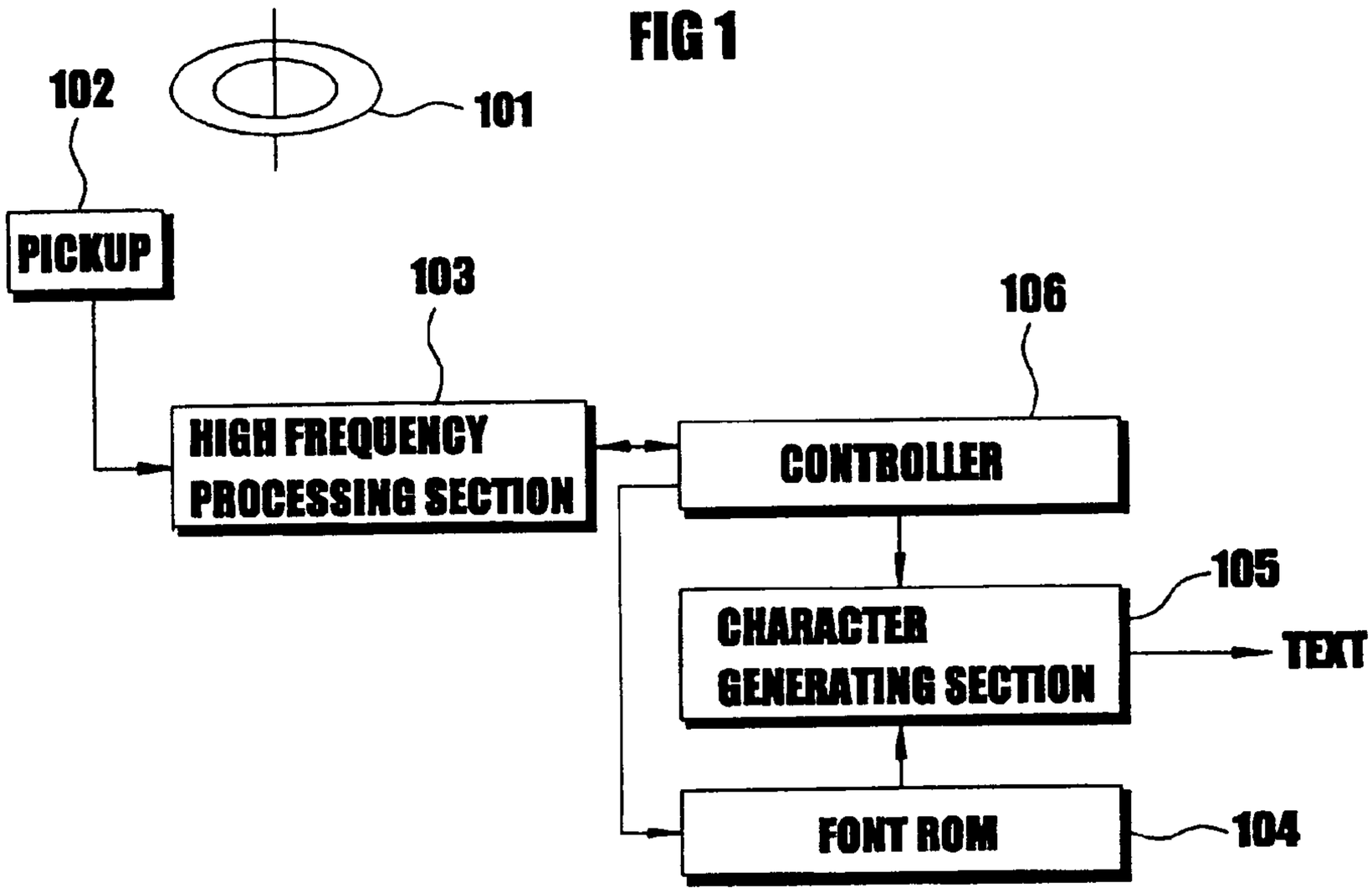
FIG 1


102
101
PICKUP
103
106
HIGH FREQUENCY PROCESSING SECTION
CONTROLLER
105
CHARACTER GENERATING SECTION
TEXT
FONT ROM
104

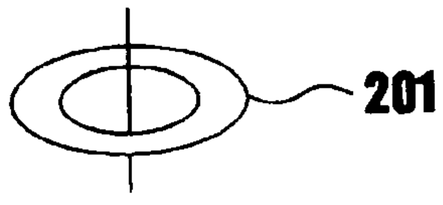

201

FIG 2

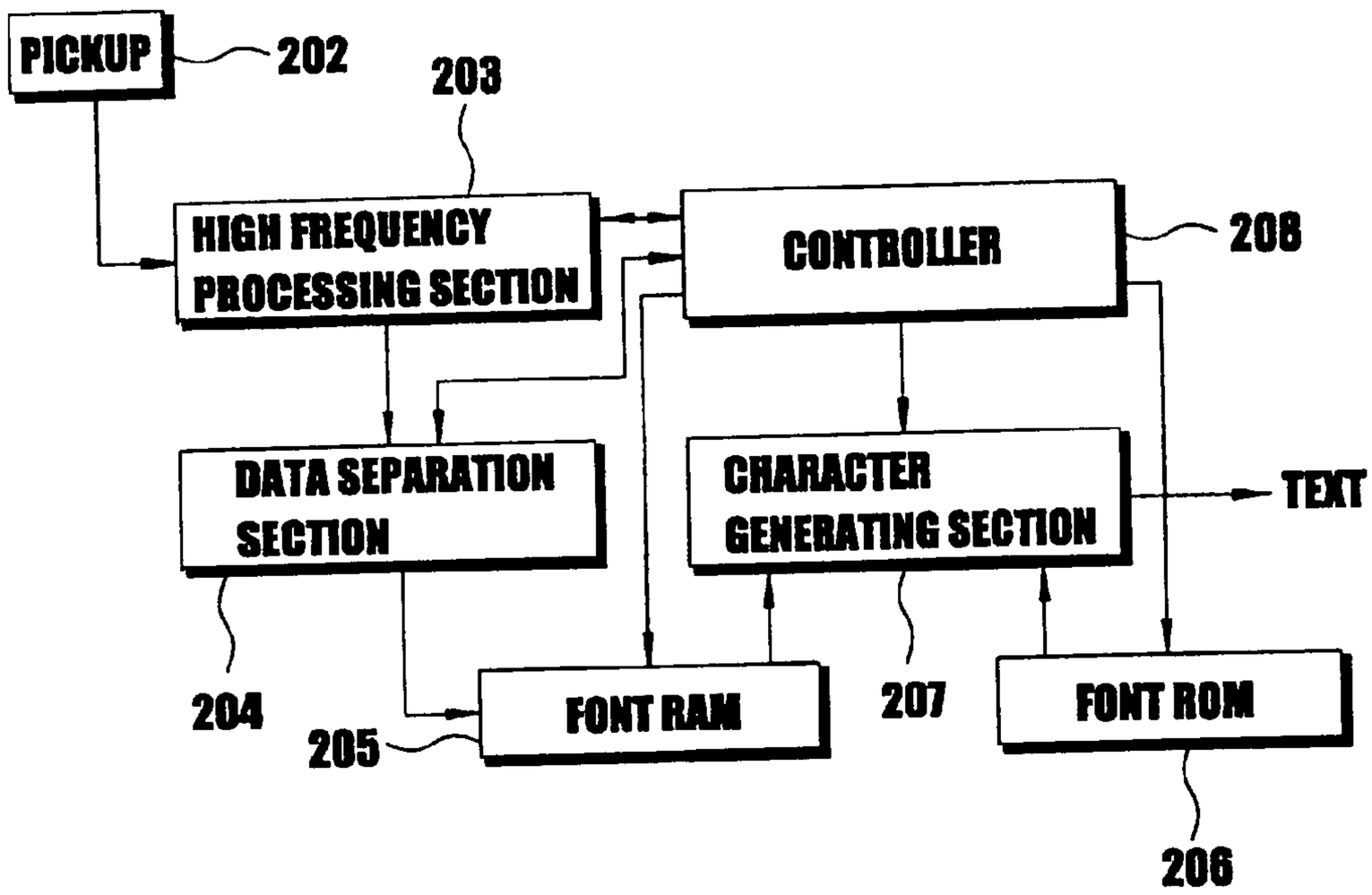

PICKUP
202
203
HIGH FREQUENCY PROCESSING SECTION
CONTROLLER
208
DATA SEPARATION SECTION
CHARACTER GENERATING SECTION
TEXT
204
205
FONT RAM
207
FONT ROM
206

FIG 3

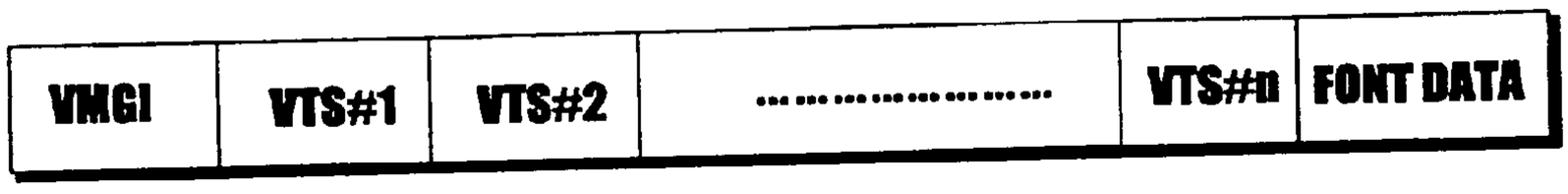
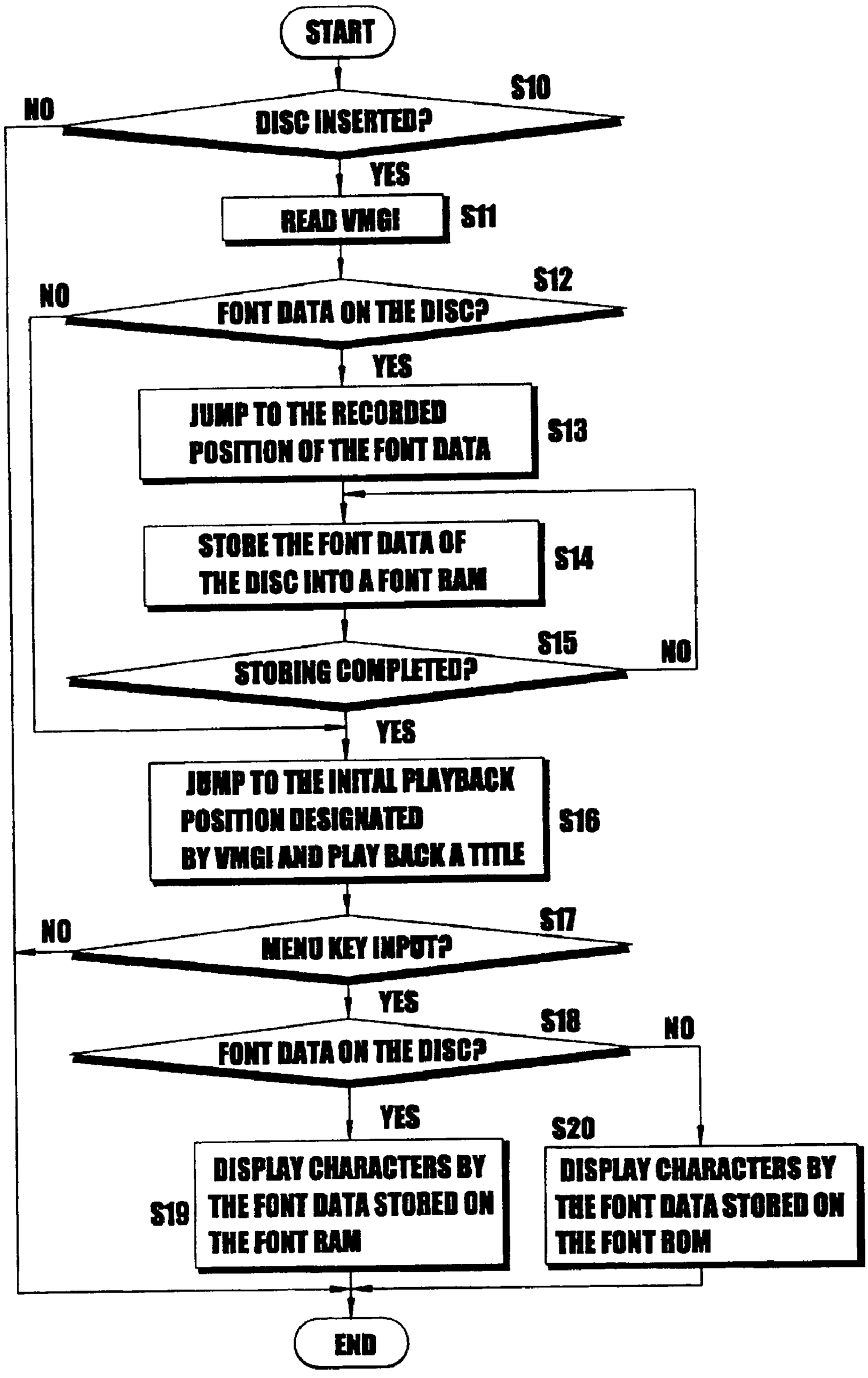

VMGI
VTS#1
VTS#2
VTS#n
FONT DATA

FIG 4


START
S10
DISC INSERTED?
NO
YES
READ VMGI
S11
S12
FONT DATA ON THE DISC?
NO
YES
JUMP TO THE RECORDED POSITION OF THE FONT DATA
S13
STORE THE FONT DATA OF THE DISC INTO A FONT RAM
S14
S15
STORING COMPLETED?
NO
YES
JUMP TO THE INITAL PLAYBACK POSITION DESIGNATED BY VMGI AND PLAY BACK A TITLE
S16
S17
MENU KEY INPUT?
NO
YES
S18
FONT DATA ON THE DISC?
NO
YES
S19
DISPLAY CHARACTERS BY THE FONT DATA STORED ON THE FONT RAM
S20
DISPLAY CHARACTERS BY THE FONT DATA STORED ON THE FONT ROM
END

APPARATUS AND METHOD FOR AN ADDITIONAL CONTENTS DISPLAY OF AN OPTICAL DISC PLAYER

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates the additions made by reissue.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to character display for a digital versatile disc (DVD) player and particularly to a character display apparatus and method for a DVD player using font data recorded on a disc.

2. Description of the Prior Art

FIG. **1** is a block diagram of a conventional character display system for a DVD player. As shown in FIG. **1**, conventional character display system is provided with a pickup **102** for detecting data recorded on a disc **101**, a high frequency processing section **103** for processing the detected data of the pickup **102** and outputting video signals, a font ROM **104** for storing font data corresponding to multi-languages, a character generation section **105** for receiving the font data stored in the font ROM **104** and generating character signals of characters for subtitle processing a language selected by a user, and a controller **106** for controlling the high frequency processing section **103**, the font ROM **104** and the character generation section **105**.

The operation of the conventional character display system will be described hereinafter.

First, when a disc is inserted in a DVD player thereby initiating a playback, the pickup **102** detects data recorded on the disc and outputs them to the high frequency processing section **103**.

Accordingly, the high frequency processing section **103** processes the detected data of the pickup **102** and outputs video signals thereby displaying images on a screen.

At this time, if the user inputs a language selection key signal (not shown), the controller **106** recognizes it and controls the character generation section **105**.

Thus, the character generation section **105** reads the font data of the language selected by the user among the font data of the multi-languages stored in the font ROM **104** for multilingual character subtitle processing and outputs the corresponding character signals.

However, conventionally, font data of all the multi-languages had to be stored in the DVD player, if multilingual character subtitle processing is needed (for example, 32 languages in standard for DVD players). As a result, ROM(s) having larger memory capacity must be used thereby increasing the cost of manufacturing DVD players.

SUMMARY OF THE INVENTION

To solve the above problem with the conventional character display system, an object of the present invention is to provide a character display apparatus for a DVD player which is capable of reducing the memory capacity neeeded for multilingual character subtitle processing.

Another object of the present invention is to provide a character display method for a DVD player which is capable of reducing the memory capacity necessary for multilingual character subtitle processing.

Yet another object of the present invention is to provide a DVD that is used in the character display apparatus and method to reduce the memory capacity needed in the player.

Still another object of the present invention is to maximize the efficiency of use of a DVD.

[To accomplish the above objects, one aspect of the present invention is to provide a character display apparatus for a DVD player which outputs character signals of a language selected from multi-languages to be used in the multilingual character subtiltle processing, on the basis of font data at least some of which are recorded in a DVD.**]**

[The character display apparatus may comprise a detection and separation means for detecting the recorded data including the font data from the DVD, and for separating the font data from the detected data; a first memory means for storing font data output from the detection and separation means; a character generation means for outputting the character signals of the selected language for subtitle processing by using the font data stored in the first memory means; and a control means for controlling the detection and separation means, the first memory means and the character generation means.**]**

[Further, the detection and separation means may comprise a pickup means for detecting the recorded data including the font data from the DVD, and for outputting the detected data; a high frequency processing means for processing detected data output from the pickup means, and for outputting video data signals; and a data separation means for separating the font data from the output signals of the high frequency processing means, and for outputting the separated font data. The control means may control the high frequency processing means, the data separation means, the first memory means and the character generation means.**]**

[The character display apparatus may, in addition, comprises a second memory for storing font data of some of the multi-languages. The control means may control the character generation means to output character signals of the selected language for subtitle processing by using the font data of the selected language from the second memory if the font data of the selected language is not on the DVD.**]**

[According to one aspect of a character display method for a DVD player of this invention, character signals of a language selected from multi-languages to be used in the multilingual character subtitle processing on the basis of font data at least some of which are recorded in a DVD are output for subtitle processing.**]**

[The character display method may comprise steps of: detecting the recorded data including the font data from the DVD, and separating the font data from the detected data; storing the separated font data output from detecting and separating step in a first memory means; and outputting the character signals of the selected language for subtitle processing by using the font data stored in the first memory means.**]**

[Further, the detecting and separating step may comprise the substeps of detecting and outputting the recorded data including the font data from the DVD; processing the recorded data output from the detecting and outputting substep, and outputting video data signals; and separating the font data from the video data signals, and for outputting the separated font data.**]**

[Further, the player may further comprise a second memory for storing font data of some of the multi-languages, and in the step of outputting the character signals of the selected language for subtitle processing, the character signals of the selected language may be output by using the font data of the selected language stored in the second memory if the character signals of the selected language for subtitle processing are not on the DVD.**]**

[According to another aspect of the character display method for a DVD player of this invention, the method comprises a first step for determining whether font data of at least some of multi-languages to be used in multilingual subtitle processing are recorded in a DVD if the DVD is inserted in the player; a second step for storing font data of at least some of the recorded languages in a first memory, if the font data of characters of languages related to the multilingual subtitle processing are stored in the DVD; and a third step for outputting character signals of a selected language for subtitle processing according to the font data stored in the first memory when one of the multi-languages is selected.]

[In the above, the player may further comprise a second memory for storing font data of some of the multi-languages, and the character signals of the selected language for subtitle processing in the third step may be output by using the font data of the selected language from the second memory if the character signals of the selected language for subtitle processing are not recorded on the DVD.]

[Further, the present invention provides a DVD on which font data of at least some of multi-languages to be used in the multilingual subtitle processing are recorded.]

[Generally, it is possible for a DVD player to subtitle-process 32 languages according to its standard. Thus font data of each of the above exemplified 32 languages are needed for selective subtitle processing of the 32 languages. However, according to the abovementioned construction of the present invention, the relevant characters of a selected language are displayed by reading out font data of the selected language when character display is selected after font data of at least some of 32 languages recorded on a predetermined area of the DVD have been downloaded, and stored into a RAM(s) at the beginning of a playback.]

[Namely, the present invention may exclude font data of at least some of the languages among the multi-languages from the font ROM. For example, on the basis of recorded contents of a disc, font data of languages with less chance to be selected by users can be recorded on a disc through discussion with manufacturers. Therefore the capacity of the font ROM may be reduced ralative to the conventional character display system where all of the font data of 32 languages must be recorded on the font ROM.]

To accomplish the above objects, one aspect of the present invention is to provide a character display apparatus for an optical disc player. The apparatus includes a detection and separation unit to detect recorded data including a first font data from an optical disc, and to separate said first font data from the detected recorded data, a memory to store the first font data output from said detection and separation unit, a character generation unit to generate character signals for characters of a selected language for a subtitle by using the first font data stored in said memory, and a controller coupled to the character generation unit, to cause the character generation unit to generate the character signals for the characters of the selected language for character subtitle processing selected from multiple languages to be used in the character subtitle processing on the basis of the first font data. Further, the first font data is downloaded from the optical disc and stored in the memory such that the stored first font data is separate from the characters of the selected language before the character generation unit generates the characters of the selected language.

In another aspect, the present invention provides a character display method for an optical disc player. The method includes detecting recorded data including first font data recorded in an optical disc, and outputting said detected recorded data as output signals, processing the output signals, and outputting video signals, separating the first font data from the video signals, and outputting the separated first font data, storing the first font data in a first memory, and outputting character signals of characters for a selected language for character subtitle processing by using the first font data stored in said first memory. Further, the first font data is downloaded from the optical disc and stored in the first memory such that the stored first font data is separate from the characters of the selected language before the outputting step outputs the characters of the selected language.

In yet another aspect, the present invention provides a character display method for an optical disc player. The method includes determining whether first font data corresponding to at least some of multiple languages to be used in character subtitle processing are recorded in an optical disc, storing the first font data in a first memory, if the first font data corresponding to characters of languages for the character subtitle processing are stored in said optical disc, and outputting character signals for characters of a selected language for the character subtitle processing according to the first font data stored in said first memory when one of said multiple languages is selected, and outputting the character signals for the characters of the selected language using second font data of the selected language from a second memory if the first font data of the selected language are not recorded in said disc. Further, the first font data is downloaded from the optical disc and stored in the first memory such that the stored first font data is separate from the characters of the selected language before the outputting step outputs the characters of the selected language.

In still another aspect character display apparatus for an optical disc player, and which includes a data separator to separate first font data to be used in character subtitle processing from a predetermined area of an optical disc, a first memory to store the separated first font data, a second memory to store predetermined second font data to be used in the character subtitle processing, a character generator to generate character signals for characters of a selected language for the character subtitle processing from the first or second font data stored in the first or second memories, respectively, and a controller to cause the character generator to generate the character signals for the characters of the selected language for the character subtitle processing from the first or second font data stored in the first or second memories, respectively, thereby outputting the character signals for the characters of the selected language for the character subtitle processing selected from multiple languages to be used in the character subtitle processing on the basis of said first or second font data.

In another aspect, the present invention provides a character display method for an optical disc player, and which includes selecting a language for subtitle processing from multiple languages, separating first font data from other data read from a disc, storing the separated first font data in a first memory, and generating character signals from the stored first font data or from predetermined second font data stored in a second memory, thereby outputting character signals for characters of the selected language to be used in the character subtitle processing on the basis of said first or second font data. Further, the first font data is downloaded from the disc and stored in the first memory such that the stored first font data is separate from the characters of the selected language before the generating step outputs the characters of the selected language.

In another aspect, the present invention provides a system for generating character signals for a selected language of a subtitle recorded in an optical disc, said optical disc includ-

ing at least a predetermined area on which first font data for generating character signals to be used in character subtitle processing are located. The system includes an optical pickup to read recorded data including the first font data to be used in the character subtitle processing, a data processor to process the first font data read from the optical pickup, a first memory to store the first font data, a second memory to store predetermined second font data to be used in the character subtitle processing, a character generator to generate the character signals for characters of the selected language for the character subtitle processing from the first or second font data stored in the first or second memories, respectively, and a controller to cause the character generator to generate the character signals for the characters of the selected language from the first or second font data stored in the first or second memories, respectively, based on the selected language, thereby outputting the character signals for the characters of the selected language from multiple languages to be used in the character subtitle processing on the basis of the first or second font data. Further, the first font data is downloaded from the optical disc and stored in the first memory such that the stored first font data is separate from the characters of the selected language before the controller outputs the characters of the selected language.

In another aspect, the present invention provides an apparatus for an additional contents display of an optical disc player, and which includes a detector to detect additional contents data associated with a main title of an optical disc, the additional contents data including a first font data, a first memory to store the detected additional contents data, a processor to process said additional contents data stored in the first memory to generate specific presentation data, and a controller to control the processor to process the additional contents data to display a specific content associated with the main title by using said specific presentation data. Further, the processor process the additional contents data including the first font data stored in the first memory of the optical disc player, the first font data being different than a second font data predetermined for the main title, and the first and second font data are different than text data.

In yet another aspect, the present invention provides a method for an additional contents display of an optical disc player, and which includes detecting additional contents data associated with a main title of an optical disc, the additional contents data including a first font data, storing the detected additional contents data in a first memory, processing the stored additional contents data to generate specific presentation data, and outputting the specific presentation data for displaying a specific content associated with the main title by using the specific presentation data. Further, the processing step uses the additional contents data including the first font data stored in the first memory of the optical disc player, the first font data being different than a second font data predetermined for the main title, and the first and second font data are different than text data.

Other and further objects, features and advantages of the invention will be apparent from the following description.

BRIEF DESCRIPTION OF THE DRAWINGS

A detailed description of this invention will be given with reference to the accompanying drawings.

FIG. **1** is a block diagram of a conventional character display system for a DVD player.

FIG. **2** is a block diagram of an embodiment of the character display apparatus for a DVD player according to the present invention.

FIG. **3** is an illustration of a recording format of a disc.

FIG. **4** is a flow chart showing the character display according to the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG. **2** is a block diagram of an embodiment of the character display apparatus for a DVD player according to the present invention As shown, the character display apparatus for a DVD player according to the embodiment of the present invention is provided with a pickup **202** which detects recorded data including font data of at least some of multilanguages to be used in multilingual subtitle processing from a disc **201**; a high frequency processing section **203** for processing output signals of the pickup **202** and outputting video data signals; a data separation section **204** for separating the font data from output signals of the high frequency processing section **203**; a font RAM **205** for storing output data of the data separation section **204**; a font ROM **206** for storing predetermined font data; a character generation section **207** for receiving the output data from the font RAM **205** and the output data from the font ROM **206**, and outputting character signals; and a controllor **208** for controlling operations of the high frequency processing section **203**, the font data separation section **204**, the character generation section **207**, the font RAM **205**, and the font ROM **206**.

The operation of the present invention constructed as above will be explained hereinafter.

First, when the disc **201** is inserted, the pickup **202** picks up a recording surface of the disc **201** including a predetermined area or predetermined areas on which the font data are recorded, and outputs the detected video management information to the high frequency processing section **203**.

Then, when the high frequency processing section **203** processes the deteced signals of the pickup **202** and outputs video signals, the controller **208** determines whether font data are on the disc **201**.

Here, information stored on the disc **201** is comprised of Video Managing Information(VMGI), Video Title Section (VTS#1~VTS#n) and font data, as shown in FIG. **3**.

At this time, Video Managing Information (VMGI) has information concerning the existence, position and size of the recorded font data.

Accordingly, if font data are recorded on the disc **201**, controller **208** controls the servo (not shown) so as to move the pickup **202** to the position where the font data are recorded.

Then, when the pickup **202** plays back the font data recorded on the disc **201**, the high frequency processing section **203** processes the reproduced font data and outputs video signals, and the data separation section **204** separates the font data from the output signals of the high frequency processing section **203** and stores the separated font data into the font RAM **205**.

After this, when the storing of the recorded font data into the font RAM **205** is completed, the controller **208** controls the servo (not shown) so as to move the pickup **202** to the initial playback position.

Accordingly, when the pickup **202** detects data recorded on the disc **201**, output signals of the high frequency processing section **203** which processes the detected data are signal-processed in a predetermined way to play back titles, and the controller **208** under playback determines whether input of the menu keys has been made.

At this time, when there has been input of menu keys, the controller **208** determines whether font data corresponding to the input are on the disc **201**.

Accordingly, when corresponding font data are on the disc **201**, the character generation section **207** controlled by the controller **208** reads data stored in the font RAM **205** and outputs character signals thereby displaying menu on a screen.

On the other hand, when corresponding font data are not recorded on the disc **201**, the character generation section **207** controlled by controller **208** reads data stored in the font ROM **206** and outputs character signals thereby displaying menu on the screen.

The above operation will be explained with reference to the flow chart shown in FIG. **4**.

Namely, when the disc **201** is inserted at step S**10**, Video Managing Information (VMGI) recorded at certain area is read at step S**12** and it is determined at step S**11** whether font data are recorded on the disc **201**.

Then, if font data are recorded on the disc **201**, the pickup **202** is jumped to the position where the font data are recorded so as to detect the font data recorded on the disc **201** at step S**13**.

Accordingly, when the high frequency processing section **203** processes output signals of the pickup **202** and outputs video signals, the font data separation section **204** separates the font data from the output video signals and store the separated font data into the font RAM **205** at step S**14**.

Thereafter, when it is determined at step S**12** that font data is not recorded on the disc **201**, or the storing of the font data into the font RAM **205** is completed at step S**15**, the pickup **202** is moved to the initial playback position designated by Video Managing Information (VMGI), and plays back a title at step S**16**.

At this time, if input of the menu keys is made at step S**17**, it is determined at step S**18** whether font data corresponding to the language selected by a user exist on the disc **201** so as to determine whether the font RAM **205** or the font ROM **206** is to be used as a source for the font data of the language selected by the user.

Accordingly, when the corresponding font data are on the disc **201** at step S**18**, the control flow goes to step S**19**, and then the character generation section **207** uses the font data stored on the font RAM **205** to output character signals thereby displaying subtitle in the selected language on a screen at step S**19**.

Otherwise, the control flow goes to step S**20**, and then the character generation section **207** uses the font data stored on the font ROM **206** to output character signals thereby displaying subtitle in the selected language on a screen at step S**20**.

According to the above embodiment of the present invention, it is provided that font data of at least some of the multi-languages to be used in multilingual subtitle processing, for example, rarely used font data are recorded (preformatted) on a disc, and then, stored into a font RAM, the font data of a language selected by a user are used from the font RAM thereby subtitle in the desired language (character) is being displayed on playback.

However, according to the present invention, it is also possible to record(format) font data corresponding to all languages on certain areas of a disc, to store the font data into a font RAM, to read the font of a language selected by a user from the font RAM and to display subtitle in the desired language (character). In this case, the font ROM **206** in FIG. **2** is not necessary.

As explained in detail above, the character display apparatus and method for a digital versatile disc (DVD) player according to the present invention record font data of at least some of multi-languages to be used in multilingual subtitle processing on certain area(s) of a disc, store the font data into a memory at initial stage of playback, read the stored font data corresponding to a language selected by selection input of a user and display character signals of the selected language for subtitle processing. Thus, the manufacturing cost can be reduced due to reduction of memory capacity requied and further DVDs can be maximum efficiently utilized.

As will be evident to those skilled in the art, various modifications of this invention can be made or followed in light of the foregoing disclosure without departing from the spirit of the disclosure or from the scope of the claims.

What is claimed is:

1. A character display apparatus for an optical disc player, *the apparatus* comprising:

a detection and separation unit to detect *if* recorded data *on an optical disc includes* **[**including**]** a *first* font data **[**from said optical disc**]**, and to separate said *first* font data from the *detected* recorded data **[**detected**]** *if the first font data is recorded on the optical disc*;

a *first* memory *area* to store the *first* font data *separated and* output from said detection and separation unit;

a second memory area to store a second font data, wherein the first and second memory areas are separated from one another;

a character generation unit to *selectively* generate character signals **[**of**]** *for* characters of a selected language for a subtitle **[**by using**]** *to have a font defined by* the *first* font data **[**stored in said memory**]** *if the first font data recorded on the optical disc is selected and to have a font defined by the second font data if the second font data stored in the second memory is selected;* and

a controller coupled to the character generation unit, to cause the character generation unit to *selectively* generate *the* character signals **[**of a language**]** *for the characters of the selected language* for *character* subtitle processing selected from *multiple languages* **[**multi-languages**]** to be used in *the character subtitle processing* **[**in multilingual character subtitle processing on the basis of font data, at least some of which are recorded in the optical disc**]**,

wherein the first and second font data are separate from the characters of the selected language before the character generation unit generates the character signals of the selected language.

2. The character display apparatus according to claim **1**, wherein said detection and separation unit comprises:

a pickup to detect the recorded data including said *first* font data from said optical disc, and to output the *detected* recorded data **[**detected**]** as output signals;

a high frequency processing unit to process the output signals of said pickup, and to output video data signals; and

a data separation unit to separate said *first* font data from the output video data signals of said high frequency processing unit, and to output the separated *first* font data,

wherein said controller controls said high frequency processing unit, said data separation unit, said memory and said character generation unit.

[3. The character display apparatus according to claim **1**,

wherein said character display apparatus further comprises a second memory for storing font data of predetermined languages, and

wherein said controller controls said character generation unit to output character signals of characters of the

selected language for subtitle processing by using the font data of the selected language from said second memory if the font data of the selected language are not on said optical disc.]

4. A [character display method for] *method of controlling* an optical disc player, *the method* comprising:

detecting *if* recorded data [including a] *on an optical disc includes a first* font data [recorded in said optical disc, and outputting said recorded data detected as output signals];

processing the [output signals,] *recorded data* and outputting [video] *output* signals *including video data and the first font data*;

separating said *first* font data from the [video] *output* signals[,] and outputting the *separated first* font data [separated], *if the first font data exists on the optical disc*;

storing the *separated first* font data in a first memory *area, a second font data being stored in a second memory area, wherein the first and second memory areas are separated from one another*; [and]

selectively generating, via a character generation device, character signals for characters of a selected language for a subtitle to have a font defined by the first font data if the first font data on the disc is selected and to have a font defined by the second font data if the second font data stored in the second memory area is selected; and

outputting [the] *said* character signals of *the characters for* [a] *the* selected language for *character* subtitle processing [by using the font data stored in said first memory],

wherein the first and second font data are separate from the characters of the selected language before the outputting step outputs the character signals of the selected language.

[**5**. The character display method according to claim **4**,

wherein said player further comprises a second memory for storing font data of predetermined languages, and

wherein said step of outputting the character signals of the selected language for subtitle processing includes outputting the character signals by using the font data of the selected language from said second memory if the font data of the selected language are not on said optical disc.]

6. A [character display] method [for] *of controlling* an optical disc player, the method comprising:

[determining] *detecting* whether *a first* font data *corresponding to* [of] at least some of [multi-languages] *multiple languages* to be used in [multilingual] *character* subtitle processing *is* recorded in an optical disc;

separating the first font data from the detected recorded data if the first font data is recorded on the optical disc;

storing the *separated first* font data [of at least some of the multi-languages] in a first memory *area,*if the *first* font data *corresponding to* [of] characters of languages for [multilingual] *the character* subtitle processing [are stored in] *is recorded on* said optical disc*, a second font data being stored in a second memory area, wherein the first and second memory areas are separated from one another*; and

selectively outputting character signals *for characters* of a selected language for *the character* subtitle processing [according to the font data stored in the first memory] when one of said *multiple languages* [multi-languages] is selected[, and outputting the character signals by using the font data of the selected language from a second memory if the font data of the selected language are not recorded in said disc] *to have a font defined by the first font data if the first font data recorded on the optical disc is selected and to have a font defined by the second font data if the second font data stored in the second memory area is selected,*

wherein the first and second font data are separate from the characters of the selected language before the outputting step outputs the character signals of the selected language.

7. A character display apparatus for an optical disc player, *the apparatus* comprising:

a detector to detect whether a first font data to be used in character subtitle processing is recorded on a predetermined area of an optical disc;

a data separator to separate *said first* font data [to be used in multilingual subtitle processing from a predetermined area of an] *from recorded data including video data and the first font data on the* optical disc *when the detector detects the first font data is recorded on the optical disc;*

a first memory *area* to store the separated first font data;

a second memory *area* to store [predetermined] *a second* font data to be used in *the character* [multilingual] subtitle processing*, wherein the first and second memory areas are separated from one another;*

a character generator to generate character signals *for characters* of a *selected* language for the *character* subtitle processing from *the first or second* [stored] font data; and

a controller to cause the character generator to *selectively* generate *the* character signals *for the characters of the selected language for the character subtitle processing to have a font defined by the first font data if the first font data recorded on the optical disc is selected and to have a font defined by the second font data if the second font stored in the second memory area is selected* [from the font data stored in the first or second memory, based on a selected language, thereby outputting character signals of a language for subtitle processing selected from multi-languages to be used in multilingual character subtitle processing on the basis of font data, at least some of which are recorded in the optical disc],

wherein the first and second font data are separate from the characters of the selected language before the outputting step outputs the characters of the selected language.

8. The character display apparatus according to claim **7**, wherein the first memory is a random access memory and the second memory is a read only memory.

9. A [character display] method [for] *of controlling* an optical disc player, *the method* comprising:

selecting a language for *character* subtitle processing from [multi-languages] *multiple languages*;

detecting if a first font data is recorded on a disc;

separating *said first* font data from other data read from [a] *the* disc *if the first font data is recorded on the disc*;

storing the separated *first* font data in a first memory *area, a second font data being stored in a second memory area, wherein the first and second memory areas are separated from one another*; and

selectively generating character signals [from the stored font data or from predetermined font data stored in a second memory, thereby outputting character signals of a] *for characters of the selected* language [for subtitle processing selected from multi-languages] to be used in *the* [multilingual] character subtitle processing *to have a font defined by the first font data if the first font data recorded on the optical disc is selected and to have a font defined by the second font data if the second font data stored in the second memory area is selected* [on the basis of font data, at least some of which are recorded in the optical disc],

wherein the first and second font data are separate from the characters of the selected language before the generating step outputs the character signals of the selected language.

[10. The character display apparatus according to claim 9, wherein said generating step includes generating the character signals from the predetermined font data if the selected language does not correspond to the stored font data in the first memory.]

11. A system for generating character signals for a *selected* language of a subtitle recorded in an optical disc, [said optical disc including at least a predetermined area on which a font data for generating character signals to be used in multilingual subtitle processing are located], *the system* comprising:

an optical pickup to read recorded data [including the font data to be used in the multilingual subtitle processing] *on the optical disc*;

a data processor to *detect if the recorded data includes first font data to be used in the character subtitle processing and to* process the *first* font data, *and to separate the first font data from the detected recorded data if the first font data is recorded on the optical disc* [read from the optical pickup];

a first memory *area* to store the *separated first* font data;

a second memory *area* to store [predetermined] *a second* font data to be used in *the character* [multilingual] subtitle processing, *wherein the first and second memory areas are separated from one another*;

a character generator to generate *the* character signals *for characters of the selected* [of a] language for the *character* subtitle processing from *the first or second* [stored] font data; and

a controller to cause the character generator to *selectively* generate *the* character signals *for the characters of the selected language to have a font defined by the first font data if the first font data recorded on the optical disc is selected and to have a font defined by the second font data if the second font data stored in the second memory area is selected* [from the font data stored in the first or second memory, based on a selected language, thereby outputting character signals of a language for subtitle processing selected from multi-languages to be used in multilingual subtitle processing on the basis of font data, at least some of which are recorded in the optical disc],

wherein the first and second font data are separate from the characters of the selected language before the controller outputs the character signals of the selected language.

12. An apparatus for an additional contents display of an optical disc player, the apparatus comprising:

a detector to detect additional contents data associated with a main title of an optical disc, to detect if the additional contents data include a first font data, and to separate the first font data from the detected additional contents data if the additional contents data includes the first font data;

a first memory area to store said additional contents data;

a second memory area to store a second font data , wherein the first and second memory areas are separated from one another;

a processor to process said additional contents data stored in said first memory to generate specific presentation data; and

a controller to control the processor to selectively process said additional contents data to display a specific content associated with said main title by using said specific presentation data and to have a font defined by the first font data if the first font data on the optical disc is selected and to have a font defined by the second font data if the second font data stored in the second memory area is selected,

wherein the first and second font data are different than character data of the specific presentation data.

13. The apparatus according to claim 12, wherein said first memory is a random access memory.

14. The apparatus according to claim 12, wherein said second font data is stored in a second memory, the second memory being a read only memory.

15. The apparatus according to claim 12, wherein said processor is a character generator to generate character signals for characters for displaying a selected language on the basis of said first or second font data.

16. A method for an additional contents display of an optical disc player, the method comprising:

detecting additional contents data associated with a main title of an optical disc, and detecting if the additional contents data include a first font data;

separating the first font data from the detected additional contents data if the additional contents data includes the first font data;

storing said additional contents data in a first memory area, a second font data being stored in a second memory area, wherein the first and second memory areas are separated from one another;

processing said stored additional contents data to selectively generate specific presentation data to have a font defined by the first font data if the first font data on the optical disc is selected and to have a font defined by the second fond data stored in the second memory area is selected; and

outputting the specific presentation data for displaying a specific content associated with said main title by using said specific presentation data,

wherein the first and second font data are different than character data of the specific presentation data.

17. The method according to claim 16, wherein said first memory is a random access memory.

18. The method according to claim 16, wherein said second font is stored in a second memory, said second memory being a read only memory.

19. The method according to claim 16, wherein said processing is performed to generate character signals for characters for displaying a selected language on the basis of said first or second font data.

20. The method according to claim 16, further comprising:

reproducing video management information from the optical disc,

wherein the video management information includes information indicating whether or not the first font data is recorded on the optical disc.

21. The method according to claim 16, wherein the video management information further includes information on a location of the first font data on the optical disc.

22. The apparatus according to claim 12, further comprising:

a pickup unit to reproduce video management information from the optical disc, the video management information including information indicating whether or not the first font data is recorded on the optical disc.

23. The apparatus according to claim 12, wherein the video management information further includes information on a location of the first font data on the optical disc.

24. The apparatus according to claim 12, wherein said specific presentation data is text subtitle for the main title.

25. The method according to claim 16, wherein said specific presentation data is text subtitle for the main title.

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