

CLAIMS

1. A transmission system including a transmission terminal that communicates with another transmission terminal, is connected to a first display device, and outputs image data to be displayed on the first display device; and an external input device that includes a second display device and transmits display data to be displayed on the second display device to the ~~a display device, another transmission terminal, and an external input device, the display device, the another transmission terminal, and the external input device being connected to the terminal device, wherein~~

the transmission terminal comprises:

~~— a resolution acquisition unit configured to acquire a resolution available for the display device;~~

~~— a resolution modification unit configured to modify a resolution of the display device to a resolution selected from among the resolution available for the display device acquired by the resolution acquisition unit; and~~

a resolution information transmission unit configured to transmit first resolution information representing a second resolution, when the a first resolution of the first display device is changed to the second resolution ~~has been modified by the resolution modification unit, to the external input device; the first resolution information representing the modified resolution, and~~

the external input device comprises:

a resolution information reception unit configured to receive the first resolution information transmitted representing the second resolution transmitted from the ~~from the resolution information transmission unit~~ terminal;

a resolution conversion unit configured to convert a resolution of the display data to be transmitted to the transmission terminal based on the received information

~~representing the first resolution information and second resolution and information representing a third resolution on of a the second display device of the external input device; and~~

a display data transmission unit configured to transmit the display data whose resolution has been converted by the resolution conversion unit, to the transmission terminal ~~in order to let the transmission terminal transmit the converted resolution to the another transmission terminal.~~

2. The transmission system ~~set forth in of~~ claim 1, wherein the display data transmission unit transmits, to the transmission terminal, the display data whose resolution has been converted in an uncompressed format.

3. The transmission system ~~set forth in of~~ claim 1 or claim 2, wherein the external input device further comprises a display control unit configured to convert the display data whose resolution has been converted into a compressed format, and

the display data transmission unit transmits the display data converted into the compressed format by the display control unit to the transmission terminal.

4. The transmission system ~~set forth in of~~ any one of claims 1 to 3, further comprising a relay device arranged between the transmission terminal and the ~~another~~ transmission terminal, wherein

the transmission terminal transmits, to the ~~another~~ transmission terminal through the relay device, the display data whose resolution has been converted and that has been transmitted from the external input device, and

the ~~another~~ transmission terminal conducts a rendering

process for the display data whose resolution has been converted and that have been transmitted from the transmission terminal, and displays the rendering processed data on the display device of the another transmission terminal.

5. The transmission system ~~set forth in~~of any one of claims 1 to 4, wherein the transmission terminal further comprises:

a resolution determination unit configured to determine whether or not a resolution available for the display device acquired by the resolution acquisition unit includes a resolution having an aspect ratio other than a reference aspect ratio used in transmitting image data; and

a resolution selection unit configured to select, based on the determination made by the resolution determination unit, the resolution having an aspect ratio other than the reference aspect ratio or the resolution with the reference aspect ratio, from among the resolution available for the display device.

6. The transmission system ~~set forth in~~of any one of claims 1 to 4, wherein the transmission terminal further comprises:

a display data reception unit configured to receive the display data whose resolution has been converted and that have been transmitted from the external input device; and

a display control unit configured to display an image on the display device of the transmission terminal based on the display data received by the display data reception unit.

7. An external input device connected to a transmission

terminal that ~~is connected to~~ communicates with another transmission terminal, the transmission terminal being connected to a first display device, the external input device being connected to a second display device, the external input device comprising:

a resolution information reception unit configured to receive information representing a second resolution from the transmission terminal when a first resolution ~~information from the transmission terminal~~ when a resolution on a display device of the first display device is changed to ~~transmission terminal has been modified,~~ the first-second resolution information representing the modified resolution;

a resolution conversion unit configured to convert a resolution of the display data to be transmitted to the transmission terminal based on the ~~first resolution~~ information representing the second resolution that has been received ~~by the resolution information reception unit~~ and ~~second resolution information~~ representing a third resolution on of a the second display device of the ~~external input device;~~ and

a display data transmission unit configured to transmit the display data whose resolution has been converted by the resolution conversion unit, to the transmission terminal ~~in order to let the transmission terminal transmit the display data to the another transmission terminal.~~

8. The external input device ~~set forth of~~ in claim 7, wherein the display data transmission unit transmits, to the transmission terminal in an uncompressed format, the display data whose resolution has been converted.

9. The external input device ~~set forth in of~~ claim 7 or

claim 8, further comprising a display control unit configured to convert the display data whose resolution has been converted into a compressed format,

wherein the display data transmission unit transmits, the display data converted into the compressed format to the transmission terminal.

10. The external input device ~~set forth of~~ in any one of claims 7 to 9, wherein the resolution conversion unit converts the resolution of the display data into the resolution represented by the second resolution information when:

a resolution in a vertical direction represented in the second resolution information is not greater than a resolution in a vertical direction represented in the first resolution information, as well as a resolution in a horizontal direction represented in the second resolution information is not greater than a resolution in a horizontal direction represented in the first resolution information.

11. The external input device ~~set forth in of~~ any one of claims 7 to 9, wherein the resolution conversion unit converts a resolution in a horizontal direction of the display data into a resolution in a horizontal direction represented in the first resolution information when: either— a resolution in a horizontal direction represented in the second resolution information is higher than the resolution in the horizontal direction represented in the first resolution information, as well as a resolution in a vertical direction represented in the second resolution information is not greater than a resolution in a vertical direction represented in the first resolution information; or

the resolution in the horizontal direction represented in the second resolution information is higher than the resolution in the horizontal direction represented in the first resolution information, the resolution in the vertical direction represented in the second resolution information is higher than the resolution in the vertical direction represented in the first resolution information, and the resolution in the vertical direction represented in the first resolution information is not less than the resolution in the horizontal direction represented in the first resolution information as well.

12. The external input device set ~~forth in~~of any one of claims 7 to 9, wherein the resolution conversion unit converts a resolution in a vertical direction of the display data into a resolution in a vertical direction represented in the first resolution information when: either — a resolution in a vertical direction represented in the second resolution information is higher than the resolution in the vertical direction represented in the first resolution information, as well as a resolution in a horizontal direction represented in the second resolution information is not greater than a resolution in a horizontal direction represented in the first resolution information, —; or

the resolution in the horizontal direction represented in the second resolution information is higher than the resolution in the horizontal direction represented in the first resolution information, the resolution in the vertical direction represented in the second resolution information is higher than the resolution in the vertical direction represented in the first resolution information, and the resolution in the vertical direction represented in the first resolution information is lower than the

resolution in the horizontal direction represented in the first resolution information as well.

13. A ~~computer-readable storage medium with an executable program for causing a computer to execute an operation for~~ for converting display resolution by an external input device which transmits display data to a transmission

~~terminal connected that communicates with to another transmission terminal, the transmission terminal being connected to a first display device, the external input device being connected to a second display device, to be able to communicate therewith, wherein the program instructs a computer to execute the operation comprising:~~

a procedure of receiving, from the transmission terminal, first resolution information which represents representing a second resolution that has been modified when a the first resolution of the first display device is changed to the second resolution on a display device of the transmission terminal has been modified;

a procedure of converting a resolution of the display data to be transmitted to the transmission terminal, based on the first resolution information representing the that has been received and second resolution information that has been received and information representing a third resolution on of a the second display device of the external input device; and

a procedure of transmitting the display data whose resolution has been converted in the procedure of converting a resolution, to the transmission terminal in order to let the transmission terminal transmit the display data from the transmission terminal to the another transmission terminal.