WHAT IS CLAIMED IS:

1. A solid-state imaging device comprising:

an imaging unit including a plurality of pixels arranged into a matrix for performing photoelectric conversion and a plurality of vertical transfer units arranged in columns for vertically transferring signal charges of the plurality of pixels on a column-by-column basis;

a charge control unit that uses a predetermined number of columns greater than one as a unit in a predetermined operation mode and that, in the predetermined operation mode, performs processing to stop transferring charges from a vertical transfer unit in a predetermined column of the predetermined number of columns and to add the signal charges transferred from the vertical transfer units in the two or more remaining columns of the predetermined number of columns to output the added signal charges; and

a horizontal transfer unit that horizontally transfers the signal charges output from the charge control unit.

2. The solid-state imaging device according to Claim 1, wherein, in another operation mode different from the predetermined operation mode, the charge control unit performs processing to convert signal charges transferred in

parallel from the plurality of vertical transfer units in units of the predetermined number of columns into serially arranged signal charges and to sequentially output the serially arranged signal charges.

3. The solid-state imaging device according to Claim 2, wherein the charge control unit is provided with a charge holding unit for holding the signal charges transferred from the plurality of vertical transfer units on a column-by-column basis in units of the predetermined number of columns, and releases the signal charges held in the charge holding unit on a column-by-column basis.

4. The solid-state imaging device according to Claim 3, wherein the charge control unit is not provided with the charge holding unit for one of the predetermined number of columns.

5. The solid-state imaging device according to Claim 3, wherein, with respect to the predetermined column, the charge control unit drains the signal charges held in the charge holding unit to a charge drain unit.

6. The solid-state imaging device according to Claim 1, further comprising an accumulation unit between the charge

control unit and the horizontal transfer unit for temporarily accumulating the signal charges output from the charge control unit.

7. The solid-state imaging device according to Claim 6, wherein the accumulation unit is provided in units of the predetermined number of columns.

8. A method for driving a solid-state imaging device including an imaging unit including a plurality of pixels arranged into a matrix for performing photoelectric conversion and a plurality of vertical transfer units arranged in columns for vertically transferring signal charges of the plurality of pixels on a column-by-column basis, and a horizontal transfer unit for horizontally transferring the signal charges transferred from the plurality of vertical transfer units, the method comprising the step of:

in a predetermined operation mode, in which a predetermined number of columns greater than one is used as a unit,

performing processing in the predetermined operation mode to stop transferring charges from a vertical transfer unit in a predetermined column of the predetermined number of columns and to add the signal charges transferred from

the vertical transfer units in the two or more remaining columns of the predetermined number of columns to output the added signal charges to the horizontal transfer unit.

9. The method according to Claim 8, further comprising the step of, in another operation mode different from the predetermined operation mode, performing processing to convert signal charges transferred in parallel from the plurality of vertical transfer units in units of the predetermined number of columns into serially arranged signal charges and to sequentially output the serially arranged signal charges.

10. A solid-state imaging device comprising:

an imaging unit including a plurality of pixels arranged into a matrix for performing photoelectric conversion and a plurality of vertical transfer units arranged in columns for vertically transferring signal charges of the plurality of pixels on a column-by-column basis;

a charge control unit that uses a predetermined number of columns greater than one as a unit in a predetermined operation mode and that, in the predetermined operation mode, performs processing to stop transferring charges from a vertical transfer unit in a predetermined column of the

predetermined number of columns and to transmit the signal charges transferred from the vertical transfer units in the remaining columns of the predetermined number of columns; and

an accumulation unit that temporarily accumulates the signal charges output from the charge control unit; and

a horizontal transfer unit that horizontally transfers the signal charges output from the accumulation unit.

11. The solid-state imaging device according to Claim 10, wherein, in another operation mode different from the predetermined operation mode, the charge control unit performs processing to sequentially output a plurality of blocks of signal charges transferred in parallel from the plurality of vertical transfer units in units of the predetermined number of columns.

12. The solid-state imaging device according to Claim 10, wherein the charge control unit is provided with a charge holding unit for holding the signal charges transferred from the vertical transfer unit in the predetermined column on a column-by-column basis.

13. The solid-state imaging device according to Claim 12, wherein, with respect to the predetermined column, the

charge control unit drains the signal charges held in the charge holding unit to a charge drain unit.

14. The solid-state imaging device according to Claim 10, wherein the accumulation unit is provided in units of the predetermined number of columns.

15. A method for driving a solid-state imaging device including an imaging unit including a plurality of pixels arranged into a matrix for performing photoelectric conversion and a plurality of vertical transfer units arranged in columns for vertically transferring signal charges of the plurality of pixels on a column-by-column basis, an accumulation unit for temporarily accumulating the signal charges transferred from the plurality of vertical transfer units, and a horizontal transfer unit for horizontally transferring the signal charges output from the accumulation unit, the method comprising the step of:

in a predetermined operation mode, in which a predetermined number of columns greater than one is used as a unit,

performing processing in the predetermined operation mode to stop transferring charges from a vertical transfer unit in a predetermined column of the predetermined number of columns and to transmit the signal charges transferred

from the vertical transfer units in the remaining columns of the predetermined number of columns to output the transmitted signal charges to the accumulation unit.

16. The method according to Claim 15, further comprising the step of, in another operation mode different from the predetermined operation mode, performing processing to sequentially output a plurality of blocks of signal charges transferred in parallel from the plurality of vertical transfer units in units of the predetermined number of columns to the accumulation unit.

17. An imaging apparatus comprising:

a solid-state imaging device including an imaging unit including a plurality of pixels arranged into a matrix for performing photoelectric conversion and a plurality of vertical transfer units arranged in columns for vertically transferring signal charges of the plurality of pixels on a column-by-column basis, and a horizontal transfer unit for horizontally transferring the signal charges transferred from the plurality of vertical transfer units;

capturing mode setting means for selectively setting a first capturing mode for capturing a moving image or a second capturing mode for capturing a still image; and

driving means for driving the solid-state imaging

device in the first capturing mode, in which a predetermined number of columns greater than one are used as a unit, to stop transferring charges from a vertical transfer unit in a predetermined column of the predetermined number of columns and to add the signal charges transferred from the vertical transfer units in the two or more remaining columns of the predetermined number of columns to output the added signal charges to the horizontal transfer unit, and for driving the solid-state imaging device in the second capturing mode to convert signal charges transferred in parallel from the plurality of vertical transfer units in units of the predetermined number of columns into serially arranged signal charges and to sequentially output the serially arranged signal charges to the horizontal transfer unit.

18. An imaging apparatus comprising:

a solid-state imaging device including an imaging unit including a plurality of pixels arranged into a matrix for performing photoelectric conversion and a plurality of vertical transfer units arranged in columns for vertically transferring signal charges of the plurality of pixels on a column-by-column basis, an accumulation unit for temporarily accumulating the signal charges transferred from the plurality of vertical transfer units, and a horizontal transfer unit for horizontally transferring the signal

charges output from the accumulation unit;

capturing mode setting means for selectively setting a first capturing mode for capturing a moving image or a second capturing mode for capturing a still image; and

driving means for driving the solid-state imaging device in the first capturing mode, in which a predetermined number of columns greater than one are used as a unit, to stop transferring charges from a vertical transfer unit in a predetermined column of the predetermined number of columns and to read out the signal charges transferred from the vertical transfer units in the remaining columns of the predetermined number of columns to output the read out signal charges to the accumulation unit, and for driving the solid-state imaging device in the second capturing mode to read out a plurality of blocks of signal charges transferred in parallel from the plurality of vertical transfer units in units of the predetermined number of columns and to output the read out signal charges to the accumulation unit.

19. An imaging apparatus comprising:

a solid-state imaging device including an imaging unit including a plurality of pixels arranged into a matrix for performing photoelectric conversion and a plurality of vertical transfer units arranged in columns for vertically transferring signal charges of the plurality of pixels on a

column-by-column basis, and a horizontal transfer unit for horizontally transferring the signal charges transferred from the plurality of vertical transfer units;

a capturing mode setting unit selectively setting a first capturing mode for capturing a moving image or a second capturing mode for capturing a still image; and

a driving unit driving the solid-state imaging device in the first capturing mode, in which a predetermined number of columns greater than one are used as a unit, to stop transferring charges from a vertical transfer unit in a predetermined column of the predetermined number of columns and to add the signal charges transferred from the vertical transfer units in the two or more remaining columns of the predetermined number of columns to output the added signal charges to the horizontal transfer unit, and driving the solid-state imaging device in the second capturing mode to convert signal charges transferred in parallel from the plurality of vertical transfer units in units of the predetermined number of columns into serially arranged signal charges and to sequentially output the serially arranged signal charges to the horizontal transfer unit.

20. An imaging apparatus comprising:

a solid-state imaging device including an imaging unit including a plurality of pixels arranged into a matrix for

performing photoelectric conversion and a plurality of vertical transfer units arranged in columns for vertically transferring signal charges of the plurality of pixels on a column-by-column basis, an accumulation unit for temporarily accumulating the signal charges transferred from the plurality of vertical transfer units, and a horizontal transfer unit for horizontally transferring the signal charges output from the accumulation unit;

a capturing mode setting unit selectively setting a first capturing mode for capturing a moving image or a second capturing mode for capturing a still image; and

a driving unit driving the solid-state imaging device in the first capturing mode, in which a predetermined number of columns greater than one are used as a unit, to stop transferring charges from a vertical transfer unit in a predetermined column of the predetermined number of columns and to read out the signal charges transferred from the vertical transfer units in the remaining columns of the predetermined number of columns to output the read out signal charges to the accumulation unit, and driving the solid-state imaging device in the second capturing mode to read out a plurality of blocks of signal charges transferred in parallel from the plurality of vertical transfer units in units of the predetermined number of columns and to output the read out signal charges to the accumulation unit.