What is claimed is:

1. An image interpolation method comprising:

determining an interpolation filter from among different interpolation filters having different characteristics according to locations of sub pixels between integer pixels; and

generating sub pixel values at the locations of the sub pixels using the selected interpolation filters.

2. The image interpolation method of claim 1, wherein the determining of the interpolation filter comprises: selecting the interpolation filter from among the different interpolation filters having different tap numbers according to the locations of the sub pixels.

3. The image interpolation method of claim 1, wherein the determining of the interpolation filters comprises: selecting the interpolation filter from among the different interpolation filters having different tap coefficients according to the locations of the sub pixels.

4. The image interpolation method of claim 1, wherein the determining of the interpolation filter comprises: setting interpolation filters that are to be applied according to the locations of the sub pixels from a plurality of interpolation filters having different characteristics and selecting the set interpolation filters according to the locations of the sub pixels.

5. The image interpolation method of claim 1, wherein the determining of different interpolation filters comprises: setting interpolation filters that are to be applied according to the locations of the sub pixels from a plurality of interpolation filters having different interpolation directions or different interpolation shapes and selecting the set interpolation filters according to the locations of the sub pixels.

WHAT IS CLAIMED IS:

1. A method of interpolating an image for inter prediction, the method comprising:

selecting different interpolation filters according to locations of sub pixels between integer pixels; and

generating sub pixel values at the locations of the sub pixels by using the selected interpolation filters,

wherein the image is split into a plurality of largest coding units,

one of the plurality of largest coding units is hierarchically split into coding units of depths comprising at least one of a current depth and a lower depth based on split information,

when the split information indicates that split is performed from the current depth, a coding unit of the current depth is split into coding units of a lower depth independently from adjacent coding units, and

when the split information indicates that split is not performed from the current depth, a coding unit of the current depth is split into at least one prediction unit.

2. The method of claim 1, wherein the selecting of the different interpolation filters comprises selecting interpolation filters having different tap numbers according to the locations of the sub pixels.

3. The method of claim 1, wherein the selecting of the different interpolation filters comprises selecting interpolation filters having different tap coefficients according to the locations of the sub pixels.

4. The method of claim 1, wherein the selecting of the different interpolation filters comprises pre-setting interpolation filters to be applied according to the locations of the sub pixels from among a plurality of interpolation filters having different characteristics, and selecting the pre-set interpolation filters according to the locations of the sub pixels.

5. The method of claim 1, wherein the selecting of the different interpolation filters comprises pre-setting interpolation filters to be applied from among a plurality of interpolation filters having different interpolation directions or different interpolation shapes according to the locations of the sub pixels, and selecting the pre-set interpolation filters according to the locations of the sub pixels.