CLAIMS

1. An image loading method, comprising:

determining whether a native heap memory stores decoded data of a first image to be loaded based on cache record information of the native heap memory, wherein the cache record information of the native heap memory is stored in a Java heap memory, wherein the decoded data of the first image includes pixel array data obtained by decoding the first image;

in response to determining that the native heap memory stores the decoded data of the first image, loading the first image based on the decoded data of the first image from the native heap memory by:

determining whether a bitmap object currently displayed on an image view and corresponding to a second image satisfies a reuse condition for the decoded data of the first image by comparing a product of a width of the second image, a height of the second image, and an amount of memory occupied by each pixel of the second image to a data length of the decoded data of the first image, and

in response to determining that the bitmap object currently displayed on the image view satisfies the reuse condition, copying the pixel array data from the native heap memory into the bitmap object currently displayed on the image view to obtain a new bitmap object, and rendering the new bitmap object into the image view to load the first image; and

in response to determining that the native heap memory does not store the decoded data of the first image, loading the first image from a storage space storing the first image, and storing, into the native heap memory, decoded data of the first image obtained in the process of loading the first image.

2. The method according to claim 1, wherein the determining whether a native heap memory stores decoded data of the first image to be loaded based on cache record information of the native heap memory comprises:

determining whether record data corresponding to the decoded data of the first image can be found in the cache record information of the native heap memory; and

in response to determining that the record data corresponding to the decoded data of the first image can be found in the cache record information of the native heap memory, determining that

the native heap memory stores the decoded data of the first image.

3. The method according to claim 2, further comprising:

determining whether the decoded data of the first image stored in the native heap memory is valid; and

in response to determining that the decoded data of the first image stored in the native heap memory is valid, obtaining the decoded data of the first image from the native heap memory.

4. The method according to claim 3, wherein the determining whether the decoded data of the first image stored in the native heap memory is valid comprises:

determining whether a native heap memory pointer that corresponds to the record data of the decoded data of the first image in the native heap memory is valid, wherein the native heap memory pointer indicates a storage address of the decoded data in the native heap memory; and

in response to determining that the native heap memory pointer is valid, determining that the decoded data of the first image stored in the native heap memory is valid.

5. The method according to claim 2, wherein the record data in the cache record information of the native heap memory is managed by using an Least Recently Used (LRU) method.

6. The method according to claim 1, wherein the loading the first image based on the decoded data of the first image from the native heap memory comprises:

in response to determining that the bitmap object currently displayed on the image view does not satisfy the reuse condition, creating a bitmap object satisfying the reuse condition, copying the pixel array data from the native heap memory into the created bitmap object to obtain a new bitmap object, and rendering the new bitmap object into the image view to load the first image.

7. The method according to claim 1, further comprising:

in response to determining that the bitmap object currently displayed on the image view

does not satisfy the reuse condition, storing the bitmap object currently displayed on the image view into a bitmap file pool.

8. An image loading device comprising one or more processors and one or more non-transitory computer-readable memories coupled to the one or more processors and configured with instructions executable by the one or more processors to cause the device to perform operations comprising:

determining whether a native heap memory stores decoded data of a first image to be loaded based on cache record information of the native heap memory, wherein the cache record information of the native heap memory is stored in a Java heap memory, wherein the decoded data of the first image includes pixel array data obtained by decoding the first image;

in response to determining that the native heap memory stores the decoded data of the first image, loading the first image based on the decoded data of the first image from the native heap memory by:

determining whether a bitmap object currently displayed on an image view and corresponding to a second image satisfies a reuse condition for the decoded data of the first image by comparing a product of a width of the second image, a height of the second image, and an amount of memory occupied by each pixel of the second image to a data length of the decoded data of the first image, and

in response to determining that the bitmap object currently displayed on the image view satisfies the reuse condition, copying the pixel array data from the native heap memory into the bitmap object currently displayed on the image view to obtain a new bitmap object, and rendering the new bitmap object into the image view to load the first image; and

in response to determining that the native heap memory does not store the decoded data of the first image, loading the first image from a storage space storing the first image, and storing, into the native heap memory, decoded data of the first image obtained in the process of loading the first image.

9. The device according to claim 8, wherein the determining whether a native heap

memory stores decoded data of the first image to be loaded based on cache record information of the native heap memory comprises:

determining whether record data corresponding to the decoded data of the first image can be found in the cache record information of the native heap memory; and

in response to determining that the record data corresponding to the decoded data of the first image can be found in the cache record information of the native heap memory, determining that the native heap memory stores the decoded data of the first image.

10. The device according to claim 9, wherein the operations further comprise:

determining whether the decoded data of the first image stored in the native heap memory is valid; and

in response to determining that the decoded data of the first image stored in the native heap memory is valid, obtaining the decoded data of the first image from the native heap memory.

11. The device according to claim 10, wherein the determining whether the decoded data of the first image stored in the native heap memory is valid comprises:

determining whether a native heap memory pointer that corresponds to the record data of the decoded data of the first image in the native heap memory is valid, wherein the native heap memory pointer indicates a storage address of the decoded data in the native heap memory; and

in response to determining that the native heap memory pointer is valid, determining that the decoded data of the first image stored in the native heap memory is valid.

12. The device according to claim 9, wherein the record data in the cache record information of the native heap memory is managed by using an Least Recently Used (LRU) method.

13. The device according to claim 8, wherein the loading the first image based on the decoded data of the first image from the native heap memory comprises:

in response to determining that the bitmap object currently displayed on the image view does not satisfy the reuse condition, obtaining, from a bitmap file pool in a Java heap memory, a

bitmap object satisfying the reuse condition, copying the pixel array data from the native heap memory into the obtained bitmap object to obtain a new bitmap object, and rendering the new bitmap object into the image view to load the first image.

14. The device according to claim 8, wherein the loading the first image based on the decoded data of the first image from the native heap memory comprises:

in response to determining that the bitmap object currently displayed on the image view does not satisfy the reuse condition, creating a bitmap object satisfying the reuse condition, copying the pixel array data from the native heap memory into the created bitmap object to obtain a new bitmap object, and rendering the new bitmap object into the image view to load the first image.

15. The device according to claim 8, wherein the operations further comprise:

in response to determining that the bitmap object currently displayed on the image view does not satisfy the reuse condition, storing the bitmap object currently displayed on the image view into a bitmap file pool.

16. A non-transitory computer-readable storage medium storing instructions that, when executed by a processor, cause the processor to perform operations comprising:

determining whether a native heap memory stores decoded data of a first image to be loaded based on cache record information of the native heap memory, wherein the cache record information of the native heap memory is stored in a Java heap memory, wherein the decoded data of the first image includes pixel array data obtained by decoding the first image;

in response to determining that the native heap memory stores the decoded data of the first image, loading the first image based on the decoded data of the first image from the native heap memory by:

determining whether a bitmap object currently displayed on an image view and corresponding to a second image satisfies a reuse condition for the decoded data of the first image by comparing a product of a width of the second image, a height of the second image, and an amount of memory occupied by each pixel of the second image to a data length of

the decoded data of the first image, and

in response to determining that the bitmap object currently displayed on the image view satisfies the reuse condition, copying the pixel array data from the native heap memory into the bitmap object currently displayed on the image view to obtain a new bitmap object, and rendering the new bitmap object into the image view to load the first image; and

in response to determining that the native heap memory does not store the decoded data of the first image, loading the first image from a storage space storing the first image, and storing, into the native heap memory, decoded data of the first image obtained in the process of loading the first image.

17. The non-transitory computer-readable storage medium according to claim 16, wherein the determining whether a native heap memory stores decoded data of the first image to be loaded based on cache record information of the native heap memory comprises:

determining whether record data corresponding to the decoded data of the first image can be found in the cache record information of the native heap memory; and

in response to determining that the record data corresponding to the decoded data of the first image can be found in the cache record information of the native heap memory, determining that the native heap memory stores the decoded data of the first image.

18. The non-transitory computer-readable storage medium according to claim 17, wherein the operations further comprise:

determining whether the decoded data of the first image stored in the native heap memory is valid; and

in response to determining that the decoded data of the first image stored in the native heap memory is valid, obtaining the decoded data of the first image from the native heap memory.

19. The non-transitory computer-readable storage medium according to claim 18, wherein the determining whether the decoded data of the first image stored in the native heap memory is valid comprises:

determining whether a native heap memory pointer that corresponds to the record data of the decoded data of the first image in the native heap memory is valid, wherein the native heap memory pointer indicates a storage address of the decoded data in the native heap memory; and

in response to determining that the native heap memory pointer is valid, determining that the decoded data of the first image stored in the native heap memory is valid.

20. The non-transitory computer-readable storage medium according to claim 17, wherein the record data in the cache record information of the native heap memory is managed by using an Least Recently Used (LRU) method.