What is claimed is:

1. A two-dimensional code recognition method, comprising:

determining whether a picture is displayed on a screen;

determining whether the picture includes a two-dimensional code, when the picture is displayed on the screen; and

identifying the two-dimensional code, when the picture includes the two-dimensional code,

wherein identifying the two-dimensional code comprises:

determining an image area with bar code symbols of the two-dimensional code,

wherein identifying the two-dimensional code further comprises:

converting the image area with bar code symbols of the two-dimensional code to a binary image,

applying dilation operation to the binary image, and

detecting an edge of the dilated binary image to obtain a profile of a bar code area of the two-dimensional code;

modifying and segmenting the profile to obtain a complete and standard bar code image;

constructing a bitmap by grid sampling of the standard bar code image to obtain a binary data of the bar code area; and

correcting, translating and converting the binary data to obtain a data code word.

2. The method of claim 1, further comprising:

displaying an operation option when the picture includes the two-dimensional code; and

receiving an instruction input by a user through the operation option, wherein the instruction instructs identifying the two-dimensional code.

3. The method of claim 1, wherein the picture comprises two or more two-dimensional codes, the method further comprising:

displaying a two-dimensional code choosing option;

receiving an instruction input by a user via the two-dimensional code choosing option; and

determining which two-dimensional code is to be identified according to the instruction.

4. The method of claim 1, further comprising:

analyzing the identified two-dimensional code; and

displaying the identified two-dimensional code, and when the identified two-dimensional code contains operation characteristic characters, providing an operation entrance for the operation characteristic characters.

~~5. The method of any one of claims 1-4, wherein identifying the two-dimensional code comprises:~~

~~determining an image area with bar code symbols of the two-dimensional code.~~

~~6. The method of claim 5, wherein identifying the two-dimensional code further comprises:~~

~~converting the image area with bar code symbols of the two-dimensional code to a binary image,~~

~~applying dilation operation to the binary image, and~~

~~detecting an edge of the dilated binary image to obtain a profile of a bar code area of the two-dimensional code;~~

~~modifying and segmenting the profile to obtain a complete and standard bar code image;~~

~~constructing a bitmap by grid sampling of the standard bar code image to obtain a binary data of the bar code area; and~~

~~correcting, translating and converting the binary data to obtain a data code word.~~

5~~7~~. The method of claim 1~~5~~, wherein the image area is determined by a user using a select box.

6~~8~~. A two-dimensional code recognition apparatus, comprising:

a first determining unit configured to determine whether a picture is displayed on a screen;

a second determining unit configured to determine whether the picture includes a two-dimensional code, when the picture is displayed on the screen; and

an identifying unit configured to identify the two-dimensional code, when the picture includes the two-dimensional code,

wherein identifying the two-dimensional code comprises:

determining an image area with bar code symbols of the two-dimensional code,

wherein identifying the two-dimensional code further comprises:

converting the image area with bar code symbols of the two-dimensional code to a binary image,

applying dilation operation to the binary image, and

detecting an edge of the dilated binary image to obtain a profile of a bar code area of the two-dimensional code;

modifying and segmenting the profile to obtain a complete and standard bar code image;

constructing a bitmap by grid sampling of the standard bar code image to obtain a binary data of the bar code area; and

correcting, translating and converting the binary data to obtain a data code word.

7~~9~~. The apparatus of claim 6~~8~~, further comprising:

a display unit configured to display an operation option when the picture includes the two-dimensional code; and

a receiving unit configured to receive an instruction input by a user through the operation option, wherein the instruction instructs identifying the two-dimensional code.

8~~10~~. The apparatus of claim 6~~8~~, wherein the picture comprises two or more two-dimensional codes, the apparatus further comprising:

a display unit configured to display a two-dimensional code choosing option;

a receiving unit configured to receive an instruction input by a user via the two-dimensional code choosing option; and

a third determining unit configured to determine which two-dimensional code is to be identified according to the instruction.

9~~11~~. The apparatus of claim 6~~8~~, further comprising:

an analyzing unit configured to analyze the identified two-dimensional code;

a displaying unit configured to display the identified two-dimensional code and provide an operation entrance for operation characteristic characters when the identified two-dimensional code contains the operation characteristic characters.

~~12. The apparatus of any one of claims 8-11, wherein identifying the two-dimensional code comprises:~~

~~determining an image area with bar code symbols of the two-dimensional code.~~

~~13. The apparatus of claim 12, wherein identifying the two-dimensional code further comprises:~~

~~converting the image area with bar code symbols of the two-dimensional code to a binary image,~~

~~applying dilation operation to the binary image, and~~

~~detecting an edge of the dilated binary image to obtain a profile of a bar code~~

~~area of the two-dimensional code;~~

~~modifying and segmenting the profile to obtain a complete and standard bar code image;~~

~~constructing a bitmap by grid sampling of the standard bar code image to obtain a binary data of the bar code area; and~~

~~correcting, translating and converting the binary data to obtain a data code word.~~

10~~14~~. The apparatus of claim 6~~12~~, wherein the image area is determined by a user using a select box.