

detecting a rotation of said object image based on said rotation characteristic of said reference data for said specific image.

5. The image recognition method according to claim 2, wherein said step of comparing said extracted feature values from said object image further comprises:

detecting a rotation of said object image using said quadrangle data.

6. The image recognition method according to claim 5, wherein said step of extracting feature values from said object image further comprises:

extracting coordinates of a circumscribing quadrangle of said object image from said quadrangle data.

7. The image recognition method according to claim 5, wherein said step of extracting feature values from said object image further comprises:

extracting coordinates of an inscribing quadrangle of said object image from said quadrangle data.

8. The image recognition method according to claim 6, wherein said step of comparing said extracted feature values from said object image further comprises:

using said coordinates of said circumscribing quadrangle of said object image to detect said specific image when said step of detecting a rotation of said object image detects rotation of said object image.

9. The image recognition method according to claim 7, wherein said step of comparing said extracted feature values from said object image further comprises:

using said coordinates of said inscribing quadrangle of said object image to detect said specific image when said step of detecting a rotation of said object image detects no rotation of said object image.

10. An image recognition apparatus for recognizing a specific image, comprising:

a scanning device for obtaining image signals from a scanned image;

a quadrangle extraction device for extracting an object image from said image signals as a candidate for recognition of said specific image and for extracting feature values from said object image using said image signals;

a reference dictionary for storing features of said specific image including a rotation characteristic indicating an ease in ability to determine a rotation of said specific image; and

a match determination device for obtaining features of said specific image from said reference dictionary, for comparing said extracted feature values from said object image with said obtained features of said specific image from said reference dictionary using an analysis which is based on said rotation characteristic of said specific image, and for generating a recognition result based on said analysis.

11. The image recognition apparatus according to claim 10, wherein said quadrangle extraction device comprises:

means for extracting quadrangle data of said object image from said extracted feature values of said object image.

12. The image recognition apparatus according to claim 10, wherein said match determination device comprises:

means for comparing said extracted feature values from said object image with features from a plurality of specific images from said reference dictionary.

13. The image recognition apparatus according to claim 10, wherein said match determination device comprises:

means for detecting a rotation of said object image based on said rotation characteristic of said reference data for said specific image.

14. The image recognition apparatus according to claim 11, wherein said match determination device further comprises:

means for detecting a rotation of said object image using said quadrangle data.

15. The image recognition apparatus according to claim 14, wherein said quadrangle extraction device further comprises:

means for extracting coordinates of a circumscribing quadrangle of said object image from said quadrangle data.

16. The image recognition apparatus according to claim 14, wherein said quadrangle extraction device further comprises:

means for extracting coordinates of an inscribing quadrangle of said object image from said quadrangle data.

17. The image recognition apparatus according to claim 15, wherein said match determination device further comprises:

means for using said coordinates of said circumscribing quadrangle of said object image to detect said specific image when said means for detecting a rotation of said object image detects rotation of said object image.

18. The image recognition apparatus according to claim 16, wherein said match determination device further comprises:

means for using said coordinates of said inscribing quadrangle of said object image to detect said specific image when said means for detecting a rotation of said object image detects no rotation of said object image.

19. A computer program product, comprising:

a computer storage medium and a computer program code mechanism embedded in the computer storage medium for causing a computer to recognizing a specific image, the computer program code mechanism comprising:

a first computer code device for obtaining image signals from a scanned image;

a second computer code device for extracting an object image from said image signals as a candidate for recognition of said specific image;

a third computer code device for extracting feature values from said object image using said image signals;

a fourth computer code device for obtaining features of said specific image from a reference dictionary including a rotation characteristic indicating an ease in ability to determine a rotation of said specific image;

a fifth computer code device for comparing said extracted feature values from said object image with said obtained features of said specific image from said reference dictionary using an analysis which is based on said rotation characteristic of said specific image; and

a sixth computer code device for generating a recognition result based on said analysis.