Claims

1. A method for identifying an identification tag after treatment thereof, the method comprising:

performing a first computerized process for registering the identification tag comprising legible identification markings, the first computerized process comprising:

obtaining a pre-treatment image of the identification tag;

finding, in the pre-treatment image, a number of serrated edges of the identification tag, each serrated edge comprising a plurality of serrations formed thereon;

determining characters from the respective serrations of each serrated edge, each serration representing a set of characters;

deriving, for each serrated edge, a tag identifier from the respective characters of the serrated edge; and

storing the pre-treatment image and tag identifier on an image database;

subjecting the identification tag to a treatment process, wherein the identification markings of the identification tag become damaged after the treatment process such that the identification markings are illegible;

performing a second computerized process for identifying the treated identification tag, the second computerized process comprising:

obtaining a post-treatment image of the treated identification tag;

finding, in the post-treatment image, the serrated edges of the identification tag;

determining the respective characters from the respective serrations of each serrated edge;

deriving, for each serrated edge, the tag identifier from the respective characters of the serrated edge;

retrieving, from the image database, the pre-treatment image of the identification tag using the tag identifier; and

identifying the treated identification tag by the retrieved pre-treatment image.

2. The method according to claim 1, further comprising performing corrective actions on the pre-treatment image and/or post-treatment image before respectively finding the serrated edges.

3. The method according to claim 2, wherein the corrective actions comprise aligning and/or cropping the pre-treatment image and/or post-treatment image.

4. The method according to any one of claims 1 to 3, further comprising performing refinement actions on the pre-treatment image and/or post-treatment image before respectively finding the serrated edges.

5. The method according to claim 4, wherein the refinement actions improve brightness, contrast, and/or resolution of the pre-treatment image and/or post-treatment image.

6. The method according to any one of claims 1 to 5, the first computerized process further comprising:

determining a shape identifier based on a body shape of the identification tag;

storing the shape identifier on the image database.

7. The method according to claim 6, the second computerized process further comprising:

determining the shape identifier based on a body shape of the identification tag; and

retrieving, from the image database, the pre-treatment image of the identification tag using the tag identifier and shape identifier,

wherein the shape identifier complements the tag identifier for identifying the pre-treatment image.

8. The method according to any one of claims 1 to 7, wherein the treatment process comprises sandblasting or galvanizing.