

CLAIMS

What is claimed is:

1. A medical device monitoring system, comprising:

a server configured to automatically:

request and receive, via a computer network, from each medical device controller of a plurality of medical device controllers, received images of contents displayed on a screen of the medical device controller, wherein the plurality of medical device controllers comprises a plurality of first medical device controllers, each configured to display information of a first type at first screen coordinates, and a plurality of second medical device controllers, each configured to display information of the first type at second screen coordinates, different from the first screen coordinates;

for each received image, generate a mosaic image, wherein the server is configured to: (a) copy a first source region, which encompasses the first screen coordinates of the received image, to a predefined destination region at third coordinates in the mosaic image, (b) copy a second source region, which encompasses the second screen coordinates of the received image, to a predefined destination region at fourth coordinates, different from the third coordinates, in the mosaic image and (c) copy a plurality of additional source regions of the received image to respective additional predefined destination regions in the mosaic image;

after the mosaic image is generated, have the mosaic image optical-character-recognized in a single service call to produce text results;

extract a selector text result from the text results, the selector text result corresponding to at least one of the additional predefined destination regions in the mosaic image;

compare the selector text result to first predefined text;

if the selector text result is found to match the first predefined text, extract a selected text result from the text results, such that the selected text result corresponds to the third coordinates in the mosaic image, otherwise extract the selected text result from the text results, such that the selected text result corresponds to the fourth coordinates in the mosaic image; and

provide the selected text result.

2. A medical device monitoring system according to claim 1, wherein the server is configured to automatically:

if the selector text result is found to not match the first predefined text, compare the selector text result to second predefined text, different from the first predefined text; and

if the selector text result is found to match the second predefined text, extract the selected text result from the text results, such that the selected text result corresponds to the fourth coordinates in the mosaic image.

3. A medical device monitoring system according to claim 1, wherein the at least one of the additional predefined destination regions in the mosaic image corresponds to an

additional source region that contains a version number of software executed by the medical device controller.

4. A medical device monitoring system according to claim 1, wherein the at least one of the additional predefined destination regions in the mosaic image corresponds to an additional source region that contains an identifier of a medical device coupled to the medical device controller.

5. A medical device monitoring system according to claim 4, wherein the identifier of the medical device comprises a serial number.

6. A medical device monitoring system according to claim 4, wherein the identifier of the medical device comprises a type code.

7. A medical device monitoring system according to claim 1, wherein the at least one of the additional predefined destination regions in the mosaic image corresponds to an additional source region that contains an identifier of an optional feature installed on the medical device controller.

8. A medical device monitoring system according to claim 1, wherein the predefined destination region at the third coordinates in the mosaic image is larger than the first source region, and to copy the first source region to the predefined destination region at the third coordinates, the server is configured to magnify the first source region so as to fill the predefined destination region at the third coordinates.

9. A medical device monitoring system according to claim 1, wherein to copy the first source region to the predefined destination region at the third coordinates, the server is configured to convert each colored pixel of the first source region to a white pixel in the predefined destination region at the third coordinates.

10. A method of monitoring a medical device, the method comprising:

requesting and receiving, via a computer network, from each medical device controller of a plurality of medical device controllers, received images of contents displayed on a screen of the medical device controller, wherein the plurality of medical device controllers comprises a plurality of first medical device controllers, each configured to display information of a first type at first screen coordinates, and a plurality of second medical device controllers, each configured to display information of the first type at second screen coordinates, different from the first screen coordinates;

for each received image, generating a mosaic image, comprising:

(a) coping a first source region, which encompasses the first screen coordinates of the received image, to a predefined destination region at third coordinates in the mosaic image;

(b) copying a second source region, which encompasses the second screen coordinates of the received image, to a predefined destination region at fourth coordinates, different from the third coordinates, in the mosaic image; and

(c) copying a plurality of additional source regions of the received image to respective additional predefined destination regions in the mosaic image;

after generating the mosaic image, having the mosaic image optical-character-recognized in a single service call to produce text results;

extracting a selector text result from the text results, the selector text result corresponding to at least one of the additional predefined destination regions in the mosaic image;

comparing the selector text result to first predefined text;

if the selector text result is found to match the first predefined text, extracting a selected text result from the text results, such that the selected text result corresponds to the third coordinates in the mosaic image, otherwise extracting the selected text result from the text results, such that the selected text result corresponds to the fourth coordinates in the mosaic image; and

providing the selected text result.

11. A method according to claim 10, wherein otherwise extracting the selected text result comprises:

comparing the selector text result to second predefined text, different from the first predefined text; and

if the selector text result is found to match the second predefined text, extracting the selected text result from the text results, such that the selected text result corresponds to the fourth coordinates in the mosaic image.

12. A method according to claim 10, wherein the at least one of the additional predefined destination regions in the mosaic image corresponds to an additional source region that contains a version number of software executed by the medical device controller.

13. A method according to claim 10, wherein the at least one of the additional predefined destination regions in the mosaic image corresponds to an additional source region that contains an identifier of a medical device coupled to the medical device controller.

14. A method according to claim 13, wherein the identifier of the medical device comprises a serial number.

15. A method according to claim 13, wherein the identifier of the medical device comprises a type code.

16. A method according to claim 10, wherein the at least one of the additional predefined destination regions in the mosaic image corresponds to an additional source region that contains an identifier of an optional feature installed on the medical device controller.

17. A method according to claim 10, wherein the predefined destination region at the third coordinates in the mosaic image is larger than the first source region, and copying the first source region to the predefined destination region at the third coordinates comprises magnifying the first source region so as to fill the predefined destination region at the third coordinates.

18. A method according to claim 10, wherein copying the first source region to the predefined destination region at the third coordinates comprises converting each colored pixel of the first source region to a white pixel in the predefined destination region at the third coordinates.

19. A non-transitory computer-readable medium encoded with instructions that, when executed by a processor, establish processes for performing a computer-implemented method of monitoring a medical device, the processes comprising:

a process configured to request and receive, via a computer network, from each medical device controller of a plurality of medical device controllers, received images of contents displayed on a screen of the medical device controller, wherein the plurality of medical device controllers comprises a plurality of first medical device controllers, each configured to display information of a first type at first screen coordinates, and a plurality of second medical device controllers, each configured to display information of the first type at second screen coordinates, different from the first screen coordinates;

a process configured to, for each received image, generate a mosaic image, wherein the process is configured to:

(a) copy a first source region, which encompasses the first screen coordinates of the received image, to a predefined destination region at third coordinates in the mosaic image;

(b) copy a second source region, which encompasses the second screen coordinates of the received image, to a predefined destination region at fourth coordinates, different from the third coordinates, in the mosaic image; and

(c) copy a plurality of additional source regions of the received image to respective additional predefined destination regions in the mosaic image;

a process configured to, after generating the mosaic image, have the mosaic image optical-character-recognized in a single service call to produce text results;

a process configured to extract a selector text result from the text results, the selector text result corresponding to at least one of the additional predefined destination regions in the mosaic image;

a process configured to compare the selector text result to first predefined text;

a process configured to, if the selector text result is found to match the first predefined text, extract a selected text result from the text results, such that the selected text result corresponds to the third coordinates in the mosaic image, otherwise extract the selected text result from the text results, such that the selected text result corresponds to the fourth coordinates in the mosaic image; and

a process configured to provide the selected text result.

20. A non-transitory computer-readable medium according to claim 19, wherein the process configured to otherwise extract the selected text result is configured to:

compare the selector text result to second predefined text, different from the first predefined text; and

if the selector text result is found to match the second predefined text, extract the selected text result from the text results, such that the selected text result corresponds to the fourth coordinates in the mosaic image.