

Claims:

1. A surveillance system comprising:

a sensing unit configured to communicate over a communication link with a control unit; the sensing unit comprises a high resolution imaging assembly operatively connected to at least one processor; the high resolution imaging assembly is configured to capture a succession of high resolution images; wherein a bandwidth of the communication link is not sufficiently large to allow transmission of the high resolution images in a desired rate;

the processor is configured to:

generate degraded images from respective images in the succession of high resolution images and transmit successively sensing-data to the control unit; the sensing-data comprising the degraded images and data indicative of one or more objects of interest in the degraded images; wherein the degraded images are suitable to be transmitted over the communication link in the desired transmission rate;

the processor is further configured, responsive to control-data received from the control unit, indicative of at least one selected element, to:

identify a location of the selected element in recently captured high resolution images in the succession of high resolution images;

extract respective high-resolution image-segments from images in the succession of high resolution images, the image-segment comprising at least the selected element; and

transmit successively the respective high-resolution image-segments to the control unit; wherein the high-resolution image-segments are suitable to be transmitted over the communication link at a desired transmission rate.

2. The system according to claim 1, wherein the control data further includes command instructions for executing a track command instructing to track one or more given objects; wherein the high-resolution image-segments are extracted from images in the succession of high resolution images according to the current location of the one or more given objects in the images from the succession of high resolution images.

3. The system according to any one of the preceding claims, wherein the at least one processor is further configured to transmit successively to the control unit, both the degraded images and high resolution image-segments of respective high resolution captured images; wherein a degraded image and a high resolution image-segment generated from the same high resolution image are displayed as a merged image, wherein the image-segment is displayed in high resolution while the area surrounding the image-segment is displayed in degraded resolution; and wherein the location of the image-segment with respect to the degraded image is adapted according to a current location of a selected element.

4. The system according to any one of the preceding claims is configured to execute a command with respect to the selected object notwithstanding a time-delay between a time when the sensing unit acquires the image with the selected object, to a time when a corresponding command is received at the sensing unit with respect to the selected object.

5. The system according to any one of the preceding claims further comprises a display unit operatively connected to the at least one processor; the display device comprising a scroller configured to enable an operator to jump between different elements which are displayed in the degraded images.

6. A method of surveying an area, using a sensing unit configured to communicate over a communication link with a control unit; the sensing unit comprises a high resolution imaging assembly operatively connected to at least one processor; the method comprising:

capturing a succession of high resolution images; wherein a bandwidth of the communication link is not sufficiently large to allow transmission of the high resolution images in a desired transmission rate;

with the help of the processor performing at least the following:

generating degraded images from respective images in the succession of high resolution images; and transmit successively sensing-data to the control unit; the sensing-data comprising the degraded images and data indicative of one or more objects of interest in the degraded images; wherein the degraded images are suitable to be transmitted over the communication link in the desired transmission rate;

responsive to control-data received from the control unit, indicative of at least one selected element:

identifying a location of the selected element in recently captured high resolution images in the succession of high resolution images;

extracting respective high-resolution image-segments from images in the succession of high resolution images, the image-segment comprising at least the selected element; and

transmitting successively the respective high-resolution image-segments to the control unit; wherein the high-resolution image-segments are suitable to be transmitted over the communication link in the desired transmission rate.

7. The method according to claim 6 further comprising:

identifying one or more objects of interest in the high resolution images; assigning a respective object-tag to the one or more objects of interest to yield one or more tagged-objects; wherein the sensing-data further comprises the object-tags.

8. The method according to any one of claims 6 and 7, wherein the control data further includes command instructions for executing a track command instructing to track one or more given objects; the method further comprising:

extracting the high-resolution image-segments from images in the succession of high resolution images according to the current location of the one or more given objects in the images from the succession of high resolution images.

9. The method according to any one of claims 6 to 8 further comprising: transmitting successively to the control unit, both the degraded images and high resolution image-segments of respective high resolution captured images; displaying as a merged image a degraded image and a high resolution image-segment generated from the same high resolution image, wherein the image-segment is displayed in high resolution while the area surrounding the image-segment is displayed in degraded resolution; and adapting the location of the image-segment with respect to the degraded image according to a current location of a selected element.

10. The method according to any one of claims 6 to 9 further comprising: transmitting successively to the control unit, both the degraded images and high resolution image-segments of respective high resolution captured images; and displaying each one of a degraded image and a high resolution image-segment generated from the same high resolution image, separately on a different display device.

11. The method according to any one of claims 6 to 10 wherein the identification of a location of the selected element comprises:

determining whether the at least one selected element is a moving object or a stationary object;

in case the at least one selected element is a moving object, obtaining from the control data an object-tag corresponding to the at least one selected object, and identifying the at least one selected object in the succession of high resolution images;

in case the at least one selected element is a stationary object, obtaining from the control data an image or part thereof, matching the image or part thereof to one or more recently captured high resolution images in the succession of high resolution images, and identifying the at least one selected object in the succession of high resolution images.

12. The method according to any one of claims 6 to 11 further comprising:

receiving a degraded image from the sensing unit; displaying the degraded image on a display device; determining, responsive to selection of an object in the image, whether the selected object is a moving object or a stationary object;

in case the selected object is a moving object, identifying an object-tag assigned to the selected object, and generating control-data comprising the object-tag;

in case the selected object is a stationary object, generating control-data comprising the image or part thereof; and sending the control-data to the sensing unit.

13. The method according to claim 12 further comprising:

successively receiving, both the degraded images and high resolution image-segments of respective high resolution captured images; displaying the degraded image and a high resolution image-segment generated from the same high resolution image as a merged image, wherein the image-segment is displayed in high resolution while the area surrounding the image-segment is displayed in degraded resolution; and adapting the location of the image-segment with respect to the degraded image according to a current location of a selected element.

14. The method according to any one of claims 6 to 13 further comprising: executing a command with respect to the selected object notwithstanding a time-delay between a time when the sensing unit acquires the

image with the selected object, to a time when a corresponding command is received at the sensing unit with respect to the selected object.

15. A data storage device readable by a computer, tangibly embodying a program of instructions executable by the computer to perform the method according to any one of claims 7 to 14.