

15. The computer system of claim 14, wherein the client data comprises pipeline inspection data, pipeline fixture data, pipeline fitting data, soil condition data, land class data, and land elevation data.

16. The computer system of claim 12, wherein the pipeline location data is a series of GPS coordinates.

17. The computer system of claim 12, wherein the registering step includes the step of:

capturing a ground control point (GCP) in the satellite data, wherein the GCP is utilized to facilitate merging of the satellite data and the pipeline data.

18. The method of claim 12, wherein the registering step is performed using a resample method and an integration method.

19. The computer system of claim 12, wherein the tracking step further comprises the steps of:

- (a) selecting two end points in the satellite image, wherein each of the two end points correspond to a tracking branch of the pipeline;
- (b) scanning pixels of the satellite image along a line orthogonal to a straight line between the two end points, wherein the pixels are scanned from both of the end points;
- (c) filtering the scanned pixels using a non-linear filter to identify peaks which indicate a route of the pipeline;
- (d) selecting the scanned pixels with a peak closest to the straight line between the two end points;
- (e) fitting the selected pixels with a least squares fitting line utilizing a robust fitting method;
- (f) setting the two end points to the location of the last selected pixel for each of the tracking branches and repeating steps (b) through (f) until the tracking branches approximately intersect; and
- (g) fitting the tracking branches with a least squares error line utilizing the robust fitting method.

20. The computer system of claim 19, wherein the selection of the two end points in step (a) is performed manually.

21. The computer system of claim 12, wherein the satellite data is VHR satellite imagery.

22. The computer system of claim 12, wherein the comparison step is automated using standard image analysis techniques.

23. A method of tracking a linear feature in a digital image, the method comprising the steps of:

- (a) selecting two end points in the digital image, wherein each of the two end points correspond to a tracking branch of the feature;
- (b) scanning pixels of the digital image along a line orthogonal to a straight line between the two end points, wherein the pixels are scanned from both of the end points;
- (c) filtering the scanned pixels using a non-linear filter to identify peaks which indicate a route of the feature;
- (d) selecting the scanned pixels with a peak closest to the straight line between the two end points;
- (e) fitting the selected pixels with a least squares fitting line utilizing a robust method;
- (f) setting the two end points to the location of the last selected pixel for each of the tracking branches and repeating steps (b) through (f) until the tracking branches approximately intersect; and
- (g) fitting the tracking branches with a least squares error line utilizing the robust method.

24. The method of claim 23, wherein the nonlinear filter is a trimmed contraharmonic filter and Ransac is the robust method utilized.

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