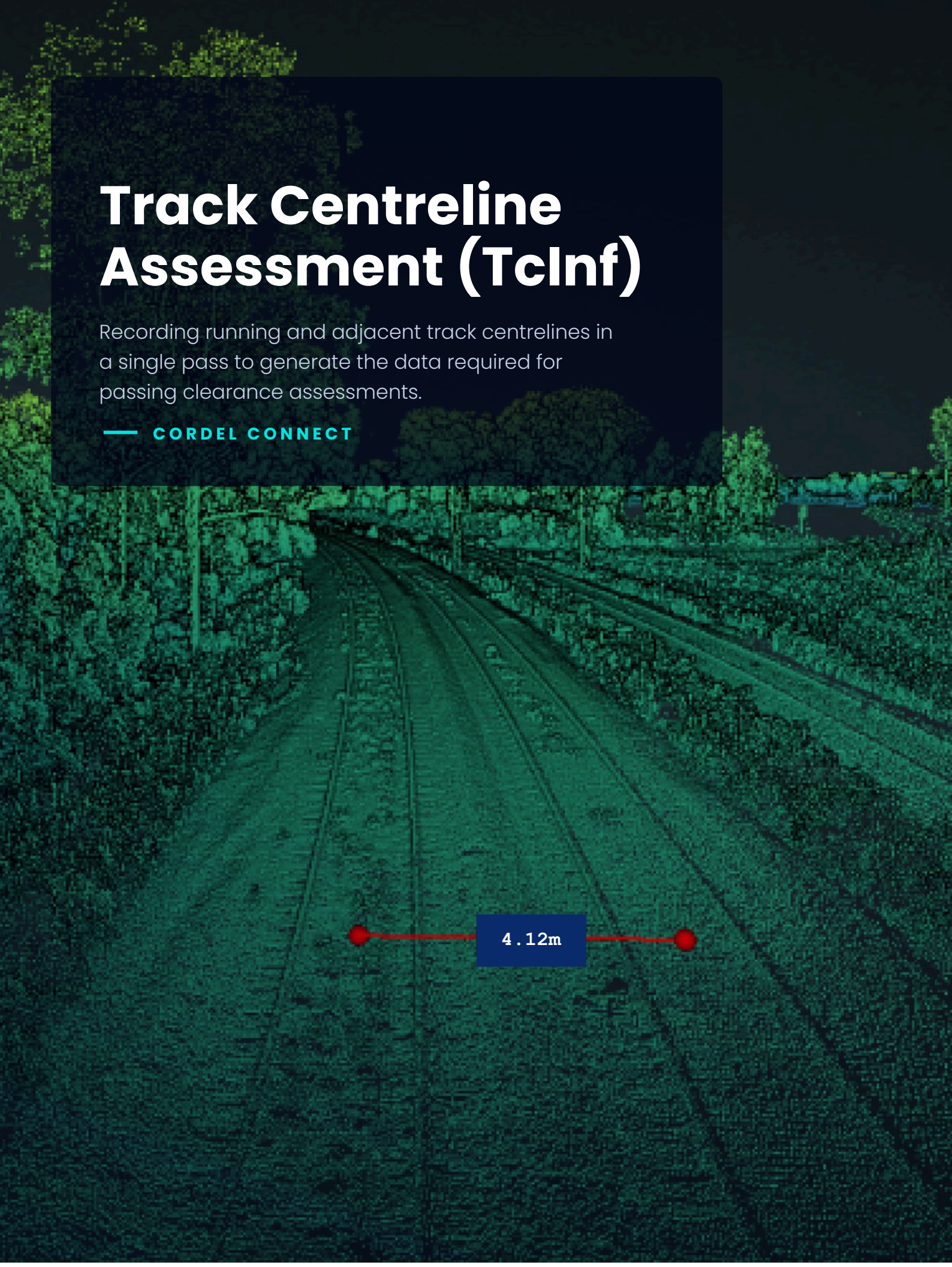
Track Centreline Assessment (TcInf)

Recording running and adjacent track centrelines in a single pass to generate the data required for passing clearance assessments.

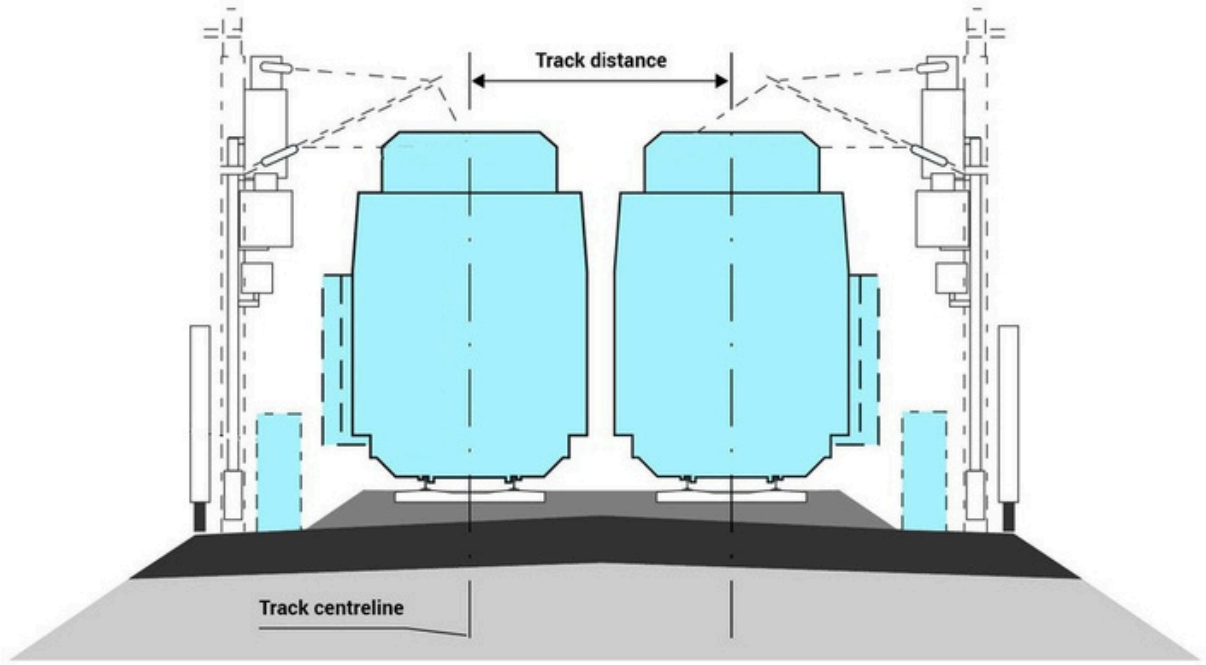
CORDEL CONNECT



Information

Summary

The Track Centreline assessment records the centrelines of the running track — and of each adjacent track (left and right), providing multiple geometric measurements that facilitate the assessment of rollingstock clearances with a single pass of the scanner.
The Track Centreline .CSV report is then generated, which includes several of the key measurements required to conduct passing clearance assessments.
The majority of use cases focus on exporting this data to third party systems, where passing clearance assessments are conducted using the data generated in the TC Infringement .CSV report.



Track centreline measurement diagram

Track Centreline Payload Data

Accessed through the Mission Viewer, users can download a range of outputs included as standard in this solution.
Cordel often produces GIS outputs, such as shapefiles, geodatabase or KML in addition to the .CSV report.

.CSV Reports

Track Centreline Infringement Report

`TCInf.csv`

The Track Centreline Infringement Report is provided as standard for this solution. Using the centreline of the running track as the datum point, Cordel AI assesses the distance from the centreline of the running track to the centreline of each adjacent track (left and right). These measurements and other key measurements are recorded and provided in the TC Inf report.

Column Name	Details
Radius	The measurement of the curvature of the track from the track centreline of the running line. In this report, -1 represents a straight (tangent) track.
Aspect	The radial direction [Left, Right, Tangent]
RunningLineCant	The measurement of the vertical distance/sloping height between the two rails of the running line.
UpTrackCentreHorizontal [mm]	The horizontal offset measurement from the track centreline to the centreline of an adjacent track (up track direction).
UpTrackCentreVertical [mm]	The vertical offset measurement from the track centreline to the centreline of an adjacent track (up track direction).
UpAdjacentLineCant	The measurement of the vertical distance/sloping height between the two rails of the adjacent track (up track direction).
DownTrackCentreHorizontal [mm]	The horizontal offset measurement from the track centreline to the centreline of an adjacent track (down track direction).
DownTrackCentreVertical [mm]	The vertical offset measurement from the track centreline to the centreline of an adjacent track (down track direction).
DownAdjacentLineCant	The measurement of the vertical distance/sloping height between the two rails of the adjacent track (down track direction).

A number of standard Cordel columns are also included in this .CSV report, such as

- Recording Information: Time, Date, LIDAR Sensor, positional reference (Latitude, Longitude, Altitude, TrackCode, Track Position, etc.)
- Solution Artefacts: Image references, LiDAR URL, Mission URL, Assessment version number.

Visual Tools

Cordel has the technology to visualise track centrelines.
It is possible (and common) for Cordel to produce GIS outputs, such as shapefiles, geodatabase or KML.

Report Graphing Tool

Typically, this report would not be graphed using the Report Graphing Tool.

LiDAR Viewer

NA

Infringements

NA—Infringement tickets are not generated as part of the standard Track Centreline clearance solution

> Whilst infringement tickets are not typically generated as part of this solution, Cordel does have the technology to generate exceptions where the measurements recorded in the .CSV report deviate beyond engineering standards by a client-defined amount.