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30 . října 2019

Telč

Pozemní mobilní snímkovací systém Trimble MX7

Trimble MX7

- Odstraňte složitosti
- Snadná instalace
- Jednoduché ovládání
- Přenosný
- Významná redukce nákladů





Trimble MX7 – příklady použití

- Správa silniční sítě
- Správa železniční sítě
- Kontrola aktiv
- Dokumentace místa pro těžbu
- Sledování staveb
- Monitorování životního prostředí
- Architektura a územní plánování, 3D modely měst
- Shromažďování údajů o ulicích – vizualizace, rozhodování a inventarizace majetku
- Dohled a bezpečnost



Trimble MX7 – technické parametry

- Inovovaný systém mobilního mapování
- Vestavěný počítač
- Úložiště: ~2 TB
- 360° panoramatická kamera
- 30 MPix (5 MPix x 6 CMOS kamer)
- 90% sférického zorného pole



Trimble MX7 – instalace



V jednoduchosti je síla

- Intuitivní dotyková obrazovka
- Snadné
 - Zaškolení
 - Ovládání

- Instalace MX7 na prakticky jakýkoliv typ vozidla:
 - Automobil
 - Terénní vozidlo
 - Nákladní vozidlo
 - Lod'
 - Lokomotiva



Trimble MX7 – technické parametry

- Trimble AP15 GNSS/inerciální systém
- 220 GNSS kanálů (GPS, GLONASS, Beidou, Galileo)
- 0,02 – 0,05 m post-procesně (bez výpadku GNSS)
- 0,2 – 0,8 m post-procesně (1 km nebo 1 minuta GNSS výpadku)

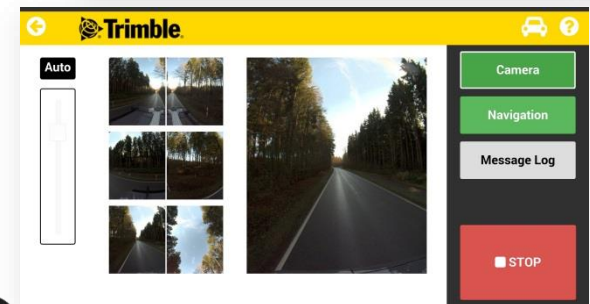
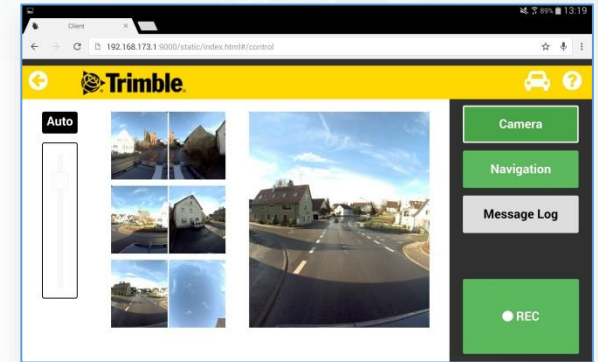


Trimble MX7 – komponenty systému

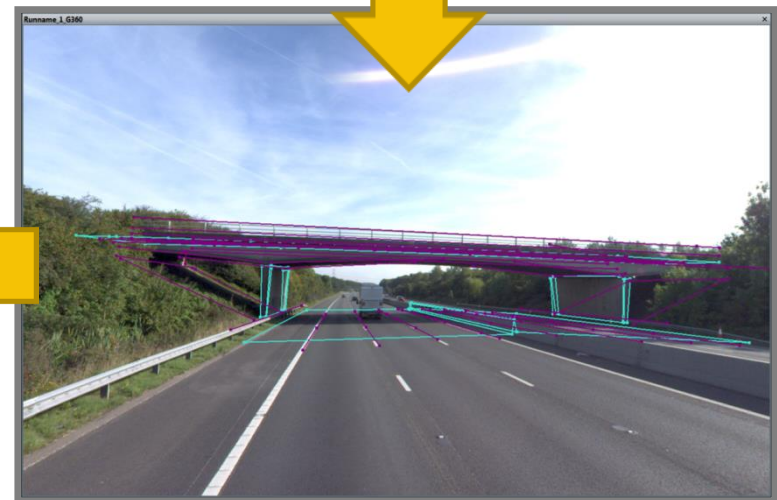
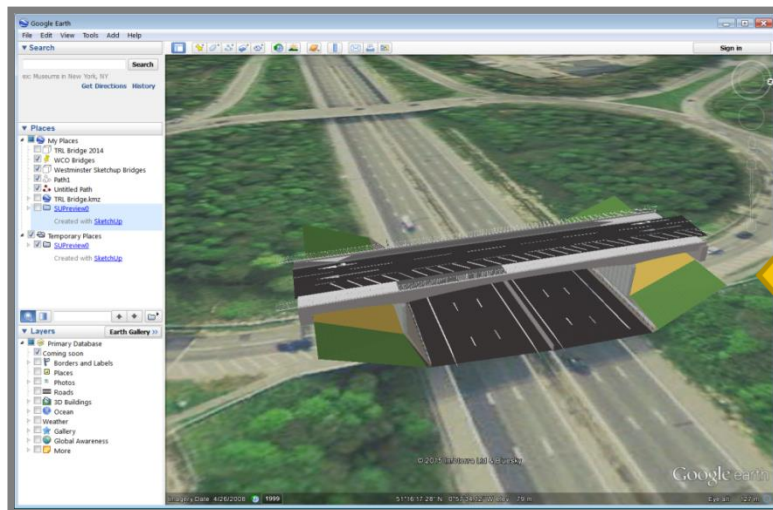
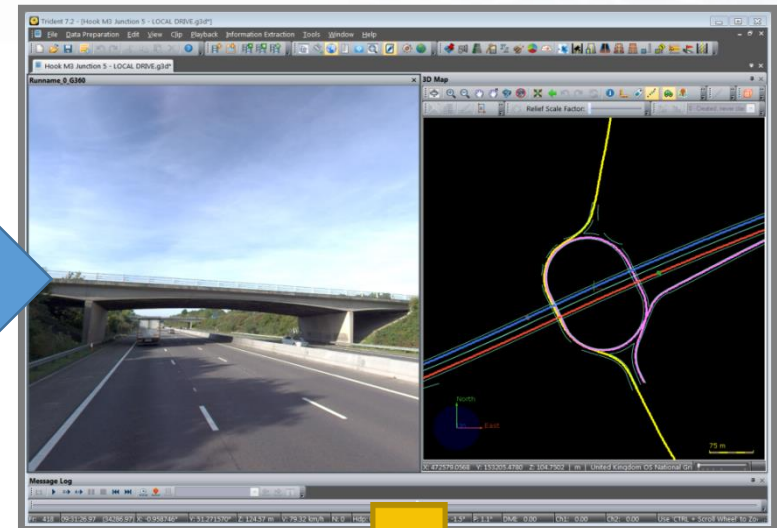
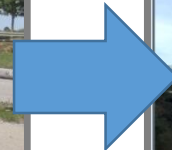


Trimble MX7 – ovládací software

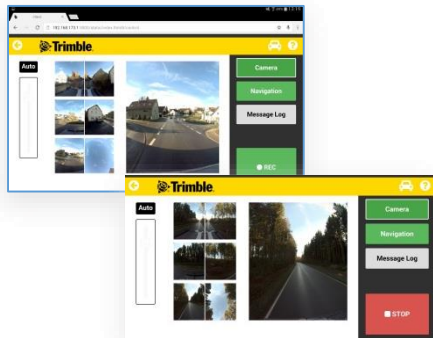
- **Trimble Mobile Imaging Software**
- Tablet s WLAN ve vozidle
- Dotykové ovládání
- Snadná manipulace pomocí tlačítka Start/Stop
- Snímky v reálném čase
- Možnost úpravy jasu, kontrastu
- Maximálně intuitivní



Trimble MX7 – projekt



Trimble MX7 – pracovní postup



Sběr dat



Zpracování

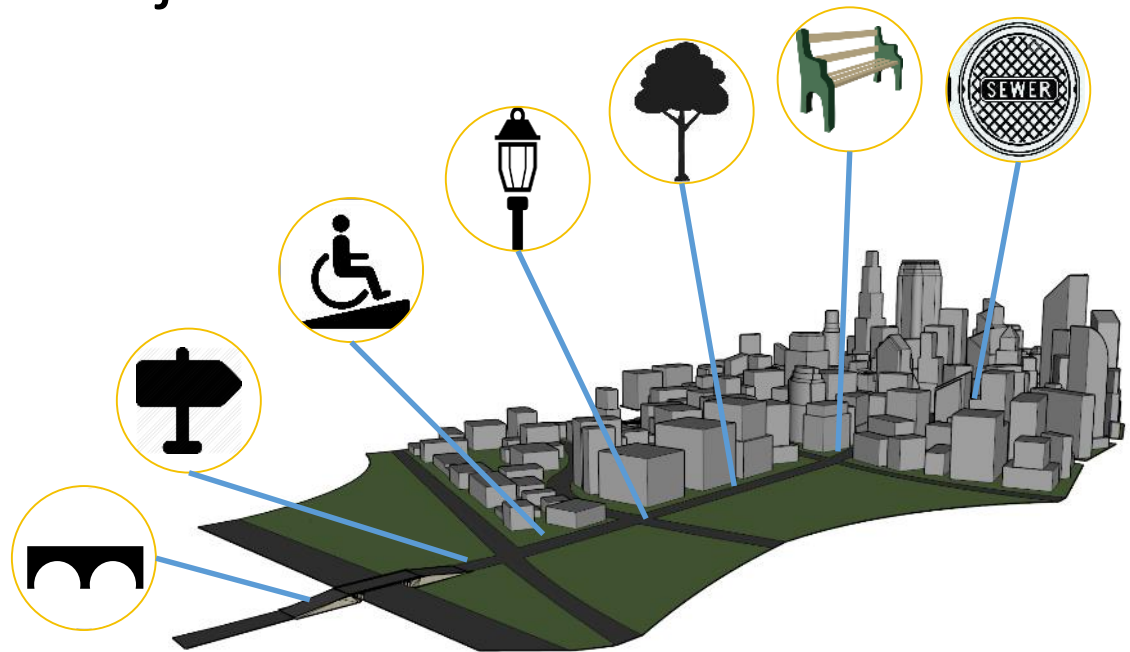


Výstup

- Trimble Mobile Imaging SW
- Zpracování GNSS/IMU trajektorií v POSPac MMS
- Trimble MX

Trimble MX7 – správa majetku

- Snímkování
 - Zpracování dat
 - Extrakce prvků
- Naplnění databáze majetku
- Analýza
- Správa
- Prohlížení



Trimble MX7 - TMI

The image displays two screenshots of the Trimble Mobile Imaging (TMI) web interface. Both screenshots feature a yellow header with the Trimble logo and the text "TRIMBLE MOBILE IMAGING".

Left Screenshot:

- URL: 192.168.173.1:9000/static/index.html#/control/#%2Fstart
- Timestamp: UTC: 2018/07/19 14:06:59
- Disk 1 usage: 0.01%
- Map view showing a geographical area with roads and greenery.

Right Screenshot:

- Timestamp: UTC: 2018/12/19 10:39:52
- Disk 1 usage: 21%
- Accuracy RMS: 0.0121 °
- Heading: 0.121 °
- Attitude: 0.117 °
- Position: 4.799 m
- Velocity: 0.060 m/s
- Status section:
 - Mode: Nav: Full
 - DMI: Disabled
 - GAMS: Online
 - IMU: OK
 - PDOP: 0.894
- Sky Plot section (empty)

Trimble MX7 - souřadnice

Trimble MX Asset Modeler Pro 19.3.0

The screenshot displays the Trimble MX Asset Modeler Pro 19.3.0 software interface. The main window shows a 2D map view of a residential area with a blue line and a yellow point. The map includes labels for streets like "Nad Malým mytém", "Braniclá", and "Nad Strouhou". A yellow point is marked on the map with a crosshair. The interface includes a top menu bar with "Workspace", "Inspector", "Preferences", "Save all", and "Print". Below the menu bar are "Measure" and "Select" buttons. The right side of the interface has a "Tools" panel with "Tools", "Extensions", "Library", and "Help" options. The bottom left shows a "Procedures" panel with "ADMINISTRATION" and "Mobile Mapping" sections. The bottom right shows a "Results" panel with "Restart", "Clear", "Copy to Clipboard", and "Copy to Feature" buttons. The status bar at the bottom indicates "This is a Not-For-Resale version" and the system clock shows "13:27 29.10.2019".

Workspace Inspector Preferences Save all Print Measure Select

Tools Extensions Library Help

Map 2D Map 3D Layout Navigation Selection Edit

Mode
2D 3D

Preferences
Measure Preferences
Forward Intersection

Measurements
Recent functions and results :
Point
X
Y
Z
Error

Point
Distance
Line
Catenary
Area
Circle
Volume

Results
Restart Clear
Copy to Clipboard
Copy to Feature

Object Inspector Task Manager Slice View Mobile Mapping UAS Mapping Oblique Asset Inventory Parallel Extraction

Open View Focus Close all Add to inventory

testovani

This is a Not-For-Resale version

13:27 29.10.2019

Trimble MX7 - měření

Trimble MX Asset Modeler Pro 19.3.0

The screenshot displays the Trimble MX Asset Modeler Pro 19.3.0 software interface. The top menu bar includes Workspace, Inspector, Preferences, Save all, and Print. The main workspace is divided into several sections:

- Map View:** Shows a 2D map of a residential area with a blue road and a yellow circle containing a crosshair. The map is labeled with coordinates and a scale of 100 metres.
- ADMINISTRATION Panel:** Contains a list of actions such as Asset Inventory, Mobile Mapping (Open Run, Import Run, Add Run, Edit Run, Close Run, Remove Run, Optimize Imagery, Process Ortho Image, Create Project, Edit Project, Remove Project), Oblique, UAS Mapping, ASSET INVENTORY, FEATURE EXTRACTION, MOBILE MAPPING, OBLIQUE, and UAS MAPPING.
- Oblique Views:** Two side-by-side camera views showing a street scene. The left view has a heading of -171.6 and a tilt of -8.1. The right view has a heading of -176.2 and a tilt of -0.1. Both views show a timestamp of 2019-10-23 14:30:34 and a field of view of 130.0 and 90.0 respectively.
- Right Sidebar:** Contains a Mode selector (2D/3D), Preferences, Measurements, and Results sections. The Measurements section lists recent functions and results, including Point, Distance, Line, Catenary, Area, Circle, and Volume. The Results section has buttons for Restart, Clear, Copy to Clipboard, and Copy to Feature.

The bottom of the screen shows the Windows taskbar with various icons and the system tray displaying the time 13:32 and date 29.10.2019. A watermark at the bottom right reads "This is a Not-For-Resale version".

Trimble MX7 - dokumentace

Trimble MX Asset Modeler Pro 19.3.0

Workspace Inspector Preferences Save all Print Measure Select

Map 2D Map 3D Layout Navigation Selection Edit

billboard C:\Users\MTAp...e\billboard.ovf
zrnacky C:\Users\MTAp...ite\zrnacky.ovf
Lampy C:\Users\MTAp...suite\lampy.ovf
fesst C:\Users\MTDesktop\test.ovf
Panoramas C:\Users\MTDe...ations.dataset
Envelope C:\Users\MTDe...e\envelope.ovf
Openstreetmap J:\J\data\da...penstreetmap.otm

Mode
2D 3D
Preferences
Measure Preferences
Forward Intersection
Measurements
Recent functions and results :
Point
Distance
Line
Catenary
Area
Circle
Volume
Results
Restart Clear
Copy to Clipboard
Copy to Feature
Objects

Create new theme
Dataset Attributes Create
Create new theme
Click the button to create the new Inventory Theme :
Create
Operation successful

Object Inspector Task Manager Slice View Mobile Mapping UAS Mapping Oblique Asset Inventory Parallel Extraction
Open View Focus Close all Add to inventory testovani

Heading: 100.8
Tilt: -34.7
Field of view: 130.0
2019-10-23 14:30:33
pano_0001_000854

Heading: 122.8
Tilt: -36.2
Field of view: 130.0
2019-10-23 14:30:33
pano_0001_000855

This is a Not-For-Resale version

13:52
29.10.2019

Trimble MX7 – bodový prvek s atributy

Trimble MX Asset Modeler Pro 19.3.0

The screenshot displays the Trimble MX Asset Modeler Pro 19.3.0 software interface. The main window shows a 2D map view with a yellow highlighted area and several blue points. The map includes labels for '673/9', '664/5', '673/3', and 'Za Mlýnem'. A scale bar indicates 18 metres. The coordinate system is WGS 84 / World Mercator, with coordinates X:1604787.2, Y:6452056.1.

The interface includes a top menu bar with options: Workspace, Inspector, Preferences, Save all, Print, Measure, and Select. A search bar is also present. The left sidebar shows a project tree with folders like 'znacky', 'Lampy', 'tesst', 'Panoramas', 'Envelope', and 'Openstreetmap'. The bottom left panel is titled 'Add inventory item' and contains a 'Draw geometry' section with options for 'Draw on Map 2D', 'Finish drawing', and 'Measure Preferences'. The bottom middle panel shows two camera views with metadata: '2019-10-23 14:30:34 pano_0001_000856' (Heading: -162.2, Tilt: -4.8, Field of view: 28.3) and '2019-10-23 14:30:34 pano_0001_000857' (Heading: -172.5, Tilt: -2.0, Field of view: 28.7). The bottom right panel shows a 'Point' measurement panel with options for 'Distance', 'Line', 'Catenary', 'Area', 'Circle', and 'Volume', and a 'Results' section with 'Restart', 'Clear', 'Copy to Clipboard', and 'Copy to Feature' buttons.

The Windows taskbar at the bottom shows the system tray with the date and time: 13:48, 29.10.2019. A watermark 'This is a Not-For-Resale version' is visible in the bottom right corner of the software interface.

Trimble MX7 – knihovna značek

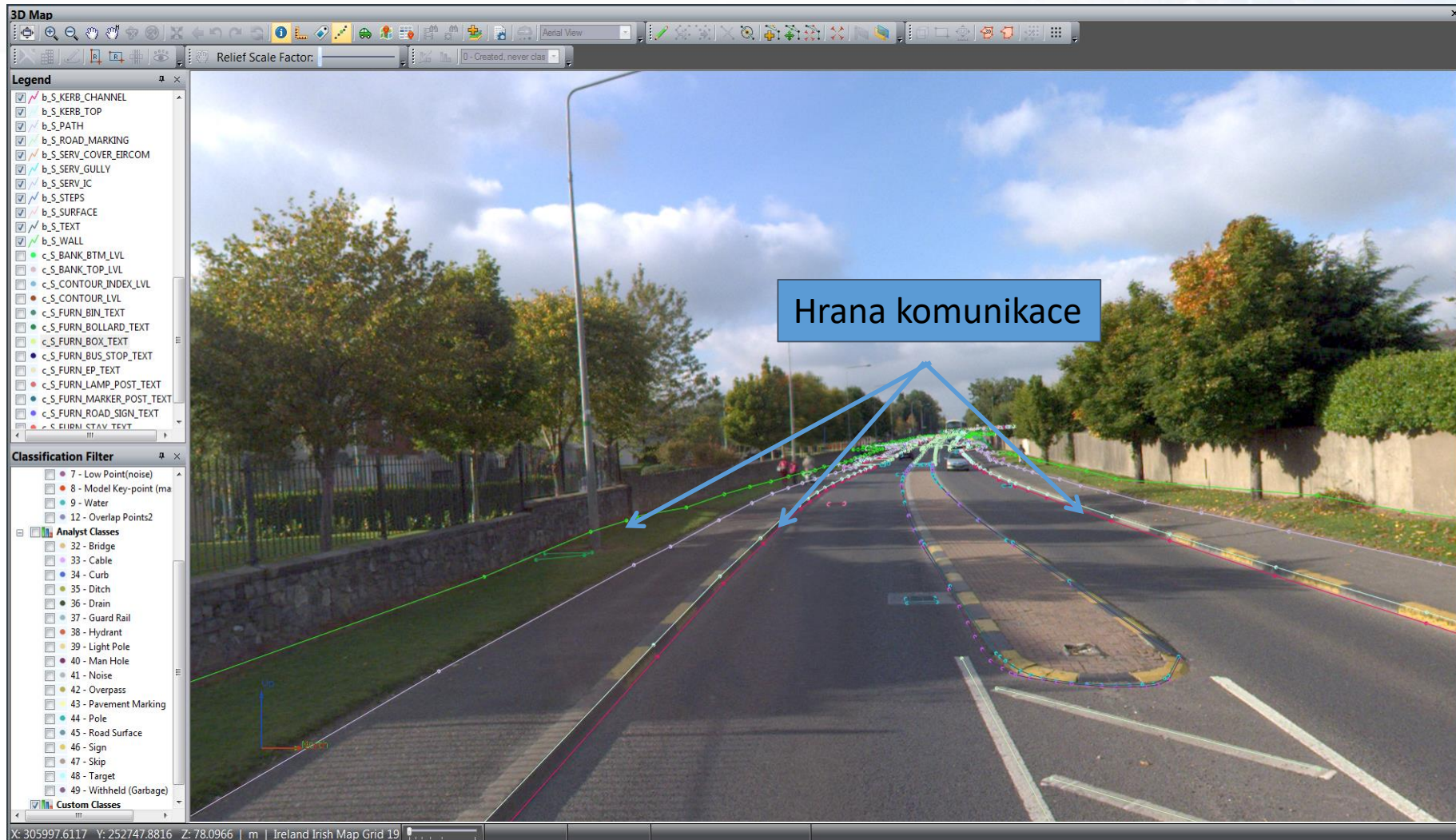


The screenshot displays the Trimble MX7 software interface. The main window is titled "Trident - 7.2 - [Ordnance Survey Single Run 290915.g3d*]". The interface includes a menu bar (File, Data Preparation, Edit, View, Clip, Playback, Information Extraction, Tools, Window, Help) and a toolbar with various icons. A "UK Sign Library" window is open, showing a grid of 717 UK traffic signs. The signs are organized into rows and columns, with a search bar and "Assign OTHER" button on the right. The main 3D view shows a rendering of a signpost with a blue circular sign featuring a white bicycle symbol and a white pedestrian symbol. The background of the 3D view is a photograph of a modern building and a parking lot. The bottom status bar displays coordinates (Fr: 391 12:04:25.72 (43465.72) X: -1.471151° Y: 50.936762° Z: 60.62 m V: 28.71 km/h N: 0 Hdp: 0.00 Age: 0 H: 82.6° R: -1.8° P: 0.7° DMI: 0.00 Ch1: 0.00 Ch2: 0.00) and a note: "Use CTRL + Scroll Wheel to Zoom, CTRL + Scroll Button to Pan".

Message Log:

```
17:12:12 -- Trident cou... available.  
17:12:12 -- The Sign Library 'UK' was successfully loaded.
```

Trimble MX7 – vektorizace



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Děkuji za pozornost.