

SEE MEASURE UNDERSTAND ■■■

# High-precision measurements in aerial images

WITH **THE** WEBTOOL FOR PHOTOGRAMMETRY

THE  
**MEASUREE**



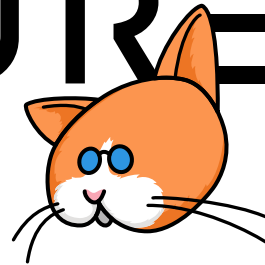
# Introduction



# The product

## THE MEASUREE

**DAS** TOOL FÜR  
PHOTOGRAMMETRIE



# The producer



## **AVT Airborne Sensing**

- Part of the AVT Group (Headquarters Imst, Tirol)
- Aero Photogrammetry
- Survey flights throughout Europe including data processing
- Special solutions for corridor recordings

# The developers



**Dr. Klaus Legat**

Photogrammetry & Mathematics

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**Joachim Legat**

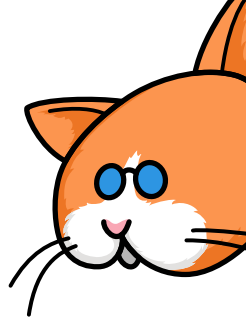
Development & Design

[j.legat@measuree.net](mailto:j.legat@measuree.net)

# MEASUREE

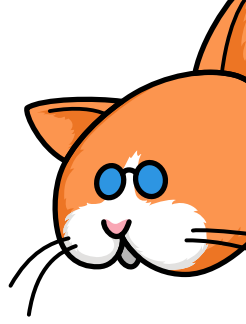
SEE MEASURE UNDERSTAND 

# Claim



- High-precision measurement in aerial photos
- Intended for surveying experts and "laymen" (e.g. municipal departments, construction companies)
- Made for single head cameras (Measuree Versatile) and multiperspective camera systems (Measuree Classic)
- Simple, intuitive and efficient

# Application examples



Local, urban and regional planning



Inspection and assessment of existing buildings



Municipal utilities



Road administration



Green space and environmental issues



Geometry-based tasks





# Measuree Versatile for single head cameras

The screenshot displays the Measuree software interface. At the top, there is a navigation bar with options like 'Positionierungen', 'Aerial Zoom', and 'Zielhöhe [m]'. The main area is divided into a large 3D map on the left and a grid of image thumbnails on the right. The 3D map shows a river, a road, and buildings, with several colored rectangles (red, blue, white) indicating flight paths or areas of interest. The image thumbnails are labeled with IDs like 'NA\_LA\_0064', 'NA\_LA\_0065', 'NA\_LA\_0063', 'NA\_LA\_0124', 'NA\_LA\_0125', and 'NA\_LA\_0066'. A status bar at the bottom shows various metrics such as 'Objekte 0', 'Monoplots 0', 'Approx. 0', '3D Punkte 0', 'davon', and 'Punkt Ost [m] 17894.03 Nord [m] 221750.38 DTM Höhe [m] 813.59'. The MEASUREE logo is visible in the top right corner of the interface.



# Measuree Versatile for single head cameras

The screenshot displays the Measuree software interface, which is used for processing drone-captured data. The main view shows a 3D model of a bridge structure with various measurement points and dimensions. The interface includes a top navigation bar with options like 'Positionierungen', 'Aerial Zoom', and 'Bildlisten'. The left sidebar contains a 'Navigator' and a '25%' zoom indicator. The right sidebar shows a list of 'Ebenen und Objekte' (Layers and Objects) and a table of 'Punkte und Messungen' (Points and Measurements).

**Ebenen und Objekte**

- PP-Kontrolle
- Pfeiler
- Betonmauern
  - Galerie\_OKausen
  - Galerie\_OKausen
  - Galerie\_OKausen
  - Galerie\_OKausen
  - Galerie\_OKausen
  - Galerie\_OKausen
  - Pfeiler\_UKausen
  - Galerie\_OKausen
  - Betonmauer\_OKausen
  - Betonmauer\_OKausen
- (Element 1)
  - [243] (18372.91 / 221217.88 / 821.68)
  - [244] (18379.50 / 221209.59 / 821.68)
  - [245] (18380.08 / 221210.03 / 821.54)

**Punkte und Messungen**

[1]	(17973.76 / 221559.56 / 795.34)
[2]	(18081.75 / 221466.58 / 809.30)
[3]	(18089.43 / 221460.08 / 809.76)
[4]	(18081.59 / 221469.38 / 808.39)
[5]	(18081.82 / 221468.44 / 802.46)
[6]	(18042.49 / 221468.47 / 799.13)
[7]	(17895.60 / 221763.51 / 787.87)
[8]	(17862.87 / 221763.61 / 800.23)
[9]	(17857.29 / 221755.90 / 800.18)
[10]	(17860.43 / 221749.90 / 800.03)
[11]	(17858.89 / 221749.09 / 799.84)
[12]	(18397.27 / 221236.04 / 828.51)
[13]	(18285.79 / 221289.82 / 828.67)
[14]	(18208.96 / 221350.11 / 828.10)
[15]	(17787.57 / 221870.55 / 792.40)
[16]	(17858.11 / 221755.07 / 800.15)

**Verlauf** **Daten** Positionierungen

Initialisierung

Datei: 'UAV\_Landeck\_87845\_CaptureCat-20231018T2151.capcat' geladen

Punkt  Ost [m] 17873.23 Nord [m] 221778.77 DTM Höhe [m] 822.53

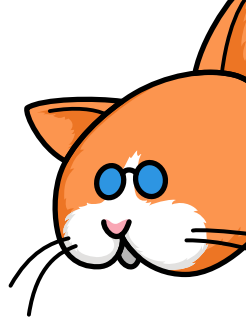
Objekte 56  Monoplots 0  Approx. 0  3D Punkte 153 davon  153  0  0  0  0  0



# Measuree Classic for multiperspective camera systems

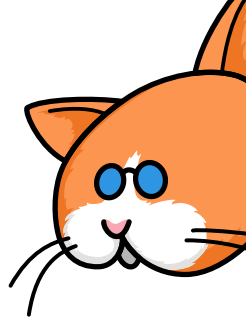
The screenshot displays the MEASUREE software interface for a multiperspective camera system. The main workspace is divided into five camera views: West (FW\_25\_2833), North (NA\_25\_2843), East (BW\_25\_2853), South (LE\_21\_2384), and North (RI\_29\_3282). A central Navigator window shows a 3.13% zoomed-in view of the city grid. The interface includes a top toolbar with navigation and zoom controls, a right-hand panel for 'Ebenen und Objekte' (Layers and Objects) listing 'Uhrturm Graz' with its elements, and a bottom panel for 'Punkte und Messungen' (Points and Measurements) listing 20 points with their coordinates. A status bar at the bottom shows 'Objekte 30', 'Monoplots 0', 'Approx. 0', '3D Punkte 59', and 'davon 0 0 59 0 0 0'. The current point coordinates are Ost [m] -67947.57, Nord [m] 215254.13, and DTM Höhe [m] 380.85.

# Important features



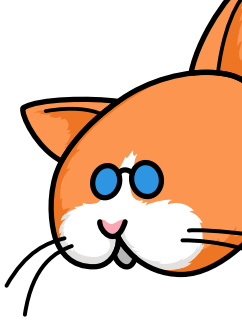
- **Hierarchical data model**  
(points, objects, layers)
- Automatic calculation of **distances** and **areas**
- Display of **measurement uncertainties** (reproduction errors, cutting angles)
- **Object declassification**  
(blackening, blurring)
- **Import/Export**  
(geojson, DXF, Shape, CSV)
- Undo/Redo, drag & drop, keyboard shortcuts, context menus
- Flexible layout, support for **multiple monitors**
- Multilingualism (en, de, it)

# Specific strengths



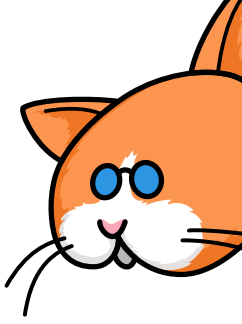
- Comparison of different flights (**construction changes**) including synchronization
- Individual **interfaces** to third-party applications (e.g. Web-GIS) or databases
- Continuous development (considering **customer request**)

# Advantages



- ✓ **More cost-effective** than on-site surveying
- ✓ **Efficient mapping** in complex image groups
- ✓ **No installation** on the user's computer (web application)
- ✓ **No expensive expert hardware** required  
(e.g. photogrammetric stereo evaluation station)

# Customers and projects



- City of **Graz** (2022, 2019, 2015, 1968)
- Land registry office **Luxemburg** (entire country)
- City of **Ferrara**
- City of **Landau**
- City of **Telfs**
- > 30 drone projects for different customers

As of February 2024

# MEASUREE

## Please contact for

Live presentations  
Online demos  
Product videos  
Whitepapers

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