

MEMENTO

TURN RECONNAISSANCE
INTO **TERRAIN INTELLIGENCE.**



Terrain intelligence and mission planning for unmanned ground vehicles.

Terrain Intelligence for Ground Vehicles: from Reconnaissance to Mission Planning

Turning drone reconnaissance, imagery, weather and field reports into one terrain model, and planning every ground mission on it.

Memento connects drone reconnaissance, satellite imagery, weather data and military reports in one software environment and turns them into a single spatial model of the terrain your vehicles have to cross.

On that model it computes where each vehicle can move, keeps it away from mud, threats and risk, and plans the mission for the vehicle, its payload and the conditions of the day. The purpose is simple: turn reconnaissance and reports into a route the operator can trust.

Mission Planning at the Tactical Edge

Plan, compare and commit in one workflow.

A drone pass or a field report is ingested, placed on the map and reflected in the route options in the same session. The operator remains in control of every route committed.

This keeps the focus on the mission, not on the data.

Console Interoperability

Connect terrain intelligence to the systems where missions are planned.

Memento is designed to sit under the ground control station or battle management system your unit already uses: your console keeps its map and its workflow, Memento provides the terrain model, the route options and the verification list. Without a console, Memento's own screens carry the same workflow.

This puts terrain intelligence where decisions are made.

Flexible Deployment

Run Memento where your unit plans.

Memento is designed to run on the unit's own hardware or on the infrastructure your organisation already operates. Wherever it runs, the terrain model and the plan remain under the unit's control.

This helps keep mission planning available when connectivity is limited.



TURN RECONNAISSANCE INTO TERRAIN INTELLIGENCE.

Terrain from a Drone Pass

Read the ground from the air.

Memento processes drone footage into an elevation model and a 3D reconstruction of the terrain it flew over, georeferenced on the map, and recognises vehicles, structures and obstacles where they were seen.

This turns every flight into terrain intelligence, not only video.

Ground State

See what the ground will do to a vehicle.

Memento reads the surface itself: mud, standing water and dry track. Each stretch is classified, mapped onto the roads it affects and turned into a cost on the terrain model.

This is how one flight changes a route.

FUSE EVERY SOURCE INTO ONE SPATIAL MODEL.

Multi-Source Fusion

Bring every source to one map.

Satellite and aerial imagery, relief, land cover, past and forecast rain, drone passes and military reports are aggregated on the same terrain model. Each is stored as a fact with its place, its time and its source, and what was seen this morning weighs more than what was reported last week.

This gives the operator one picture of the ground instead of several feeds to reconcile.

Reports and Weather

Turn reports into mapped risk.

AI-assisted extraction reads situation reports, radio messages and field notes for what they say about the ground and the threat, and places it on the roads and areas concerned. Rain over the past day and the forecast for the next rate every track for what it is today and what it will be tomorrow.

This puts the unit's own knowledge on the map, at the tempo reports arrive.



COMPUTE WHERE YOU CAN MOVE.

AVOID **MUD**. AVOID **THREATS**. AVOID **RISK**.

Traversability Models

Rate every stretch of ground for every vehicle.

Custom AI models rate each road, track and field from the composition of the terrain, the land cover, the recent weather and what the last reconnaissance reported, per vehicle class. What a vehicle drove, where it slowed and where it stopped feeds back into the model.

This tells the planner where a vehicle can go before anyone drives it.

PLAN AROUND TERRAIN AND RISK.

Route Options

Compare fastest, balanced and safest for every mission.

The three routes are computed for the vehicle class, its laden mass and the ground it can take, and drawn on the map with their time, distance and risk. Operators compare them and commit one; a new report or a new pass recomputes them.

This shortens the path from a changed picture to a new route.

Threat Avoidance

Plan around what has been reported.

A reported contact, a strike or a mined stretch becomes a cost on the model, with the time it was reported. The safest route stays out of it; the fastest shows what crossing it would cost.

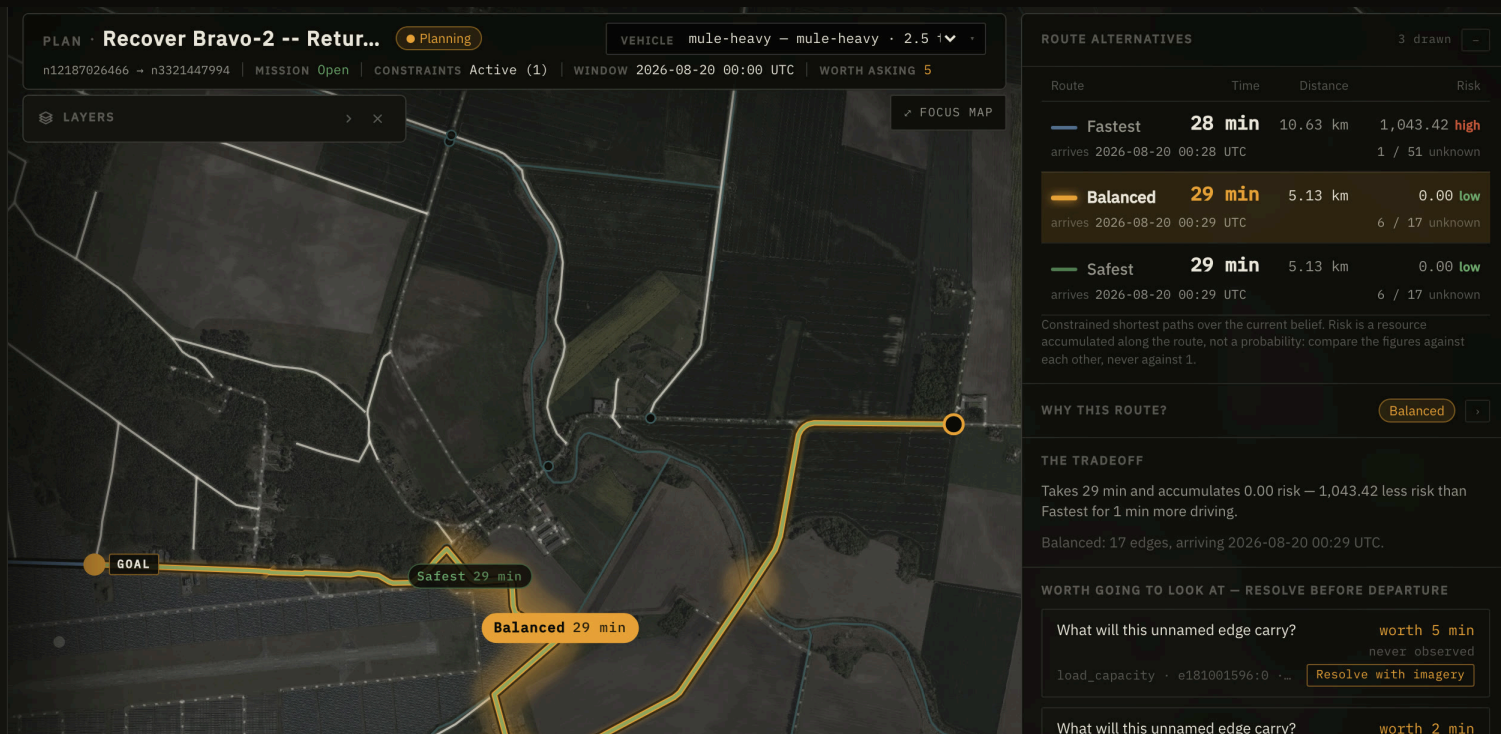
This keeps the choice with the operator: around it, or through it at a known price.

Verification Before Departure

Know what to check first.

Of everything unknown along the route, Memento names the few places that would change the plan if checked, and what each is worth in mission time. The list says where to send the next reconnaissance.

This turns reconnaissance from a routine into a targeted task.



The terrain intelligence layer of ground mission planning

Memento is more than a route planner.

Memento is the terrain intelligence layer that connects drone reconnaissance, imagery, weather, reports, operators and the console where missions are planned.

It turns reconnaissance and report data into a terrain model and a plan, and hands both to the systems where decisions are made.

In operation, the data remains under the unit's control.

From evidence to movement

A plan only matters if it is built on what the ground is today.

When the terrain changes, reports arrive faster than they can be read and the mission tempo increases, Memento keeps the terrain picture current and the plan built on it.

Evaluation

Memento is available for a bounded feasibility evaluation on your own vehicle profile, area of operations and the drone footage you release for it. The written result states what your footage yields on your ground.

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