Benefits

Enhanced situational awareness
Maximize the knowledge of what is going on around you

Increased safety
Identify and manage strategic and operational risks

Up-to-date information
Benefit from the newest data from ground-based sources

Reliable decision support
Make informed, data-driven decisions

Reduced workload
Facilitate your day-to-day tasks and automate authority-related procedures

Tried & tested quality
Proven track record, e.g. standard issue at Slovak Air Force

VP&M for EFB
Maximizing the situational awareness of flight crews

Our Vertical Profile & Map (VP&M) solution leverages on-board connectivity to combine information-packed moving maps, vertical profile views and flight planning capabilities in a single EFB application.

Flight crews have to effectively manage complex operational environments, so having the right information at your fingertips at the right time is crucial. Combining FMS data with constantly updated weather forecasts and other issues impacting planned missions, our VP&M solution gives pilots a full picture of what is going on with and around the aircraft and enables them to make informed and safety-conscious decisions when planning and operating their flights.

Designed for maximum efficiency, the VP&M user interface collates and displays key information in easy-to-grasp graphical formats with a customizable geographical map, a vertical profile view and dedicated info panels to visualize all the data required in the pre-/in-/post-flight operational phases. These are augmented with terrain information, safety calculation results and real-time avionic features.

Our VP&M solution can integrate proprietary methods, legacy data and codes and can also be deployed as a web-based solution. Our cutting-edge development toolbox allows us to take a flexible building-block approach to creating your bespoke solution, which not only saves time and money but also guarantees your customization is built around a robust and reliable functional core.
Key Features

Flexible map
Customize moving maps to your current information needs

Flight performance model
Calculate point, leg and mission performance with aircraft algorithms

Collision warnings
Identify potential conflicts with terrain, restricted airspace, obstacles, etc.

Live weather
Receive meteorological updates in real time

Live NOTAMS
Get alerts as soon as a new NOTAM is issued

Flight monitor
Download data while flying to see all your aircraft’s status

Extensible fleet libraries
Customize modules to your specific aircraft mix

Flexible integration
Choose how to connect the tool to your avionics system

In-depth analysis
Perform sophisticated trade-offs and optimizations

High efficiency
Re-calculate your flight plan en route in real time

Customizable solution
Built leveraging our cutting-edge development toolbox and our long-time experience with fixed and rotary wing aircraft

Real-time vertical and horizontal situational awareness and in-flight (re-)planning

VP&M combines a vertical view based on the OFP trajectory with a fully customizable map view of the geographical area underneath. Both views can be overlaid with avionics data, terrain elevation, weather, performance and safety information, giving pilots a 360-degree situational awareness, which is vital especially for military missions. Additional information such as NOTAM details, safety altitude and frequencies can be accessed by tapping on individual view elements (airports, airways, etc.) or via a full-text search.

VP&M’s flight (re)planning module allows defining routes in the pre-flight and in-flight phase with just a few taps while the associated vertical profile reveals obstacles such as high terrain or restricted airspace/NOTAMs. Every change triggers performance and safety calculations and updates both views with the results (e.g. warnings, safety altitude, TOC/TOD, max. endurance), pushing all data to the other crew EFBs. Optionally, VP&M can be enhanced with a vertical flight profile optimizer to make your flight more secure and cost-efficient.

During the in-flight phase, VP&M aids navigation by superimposing aircraft position and other real-time avionics data on the flight path, enabling ground staff to monitor the flight and pilots to take geo-referenced notes for later analysis. In addition, VP&M provides a range circle and a terrain masking option (at current altitude), which helps reduce the risk of mid-air collisions.

Flight plans generated with VP&M can be saved in an FMS-compatible format to be uploaded or shared with crew members or ground staff. VP&M also comes with smart export functions, which facilitate crew reporting (International FP, Pilot Log) and post-flight analysis. Their layout and scope can be customized in-house via an admin tool or as a value-added service from us.

To find out more or request a free software demo, please visit our website!

TXT e-solutions is an international, specialized provider of engineering software solutions supporting customers in high-tech markets in their mission- and business-critical core processes and throughout their product lifecycles.

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