PATHFINDER
MISSION MANAGEMENT

Technology

Core Objectives

- Systems integration
- Full cycle mission planning
- State-of-the-art 2D/3D mapping engine
- User-centered design from real-world experience
- Designed to meet DO-178C

Mission Cycle Tools

- FalconView™ compatible
- Weight and balance
- H.264 video encoding and playback
- Data import/export to portable storage
- Device preset and configuration management
- Day and night configurations

Mapping

- Routes, points, drawings
- Multiple geo-coordinate standards supported including MGRS
- Range/bearing tools
- EO/IR sensor geo-point, cueing, marking
- Most commonly used map data formats supported

  Raster:
  DTED, CADRG, ADRG, CIB

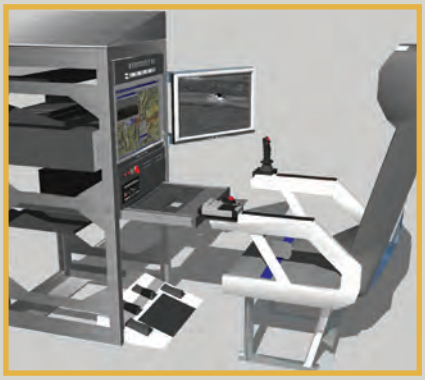
  Vector:
  DAFIF, SHAPES, KML, KMZ

Introduction

PATHFINDER™ is a customizable Mission Management System (MMS) that has been meticulously designed by a team of former special operations aviators based on real-world experience. Already fielded on NorthStar Aviation's highly successful Bell 407GX platform, PATHFINDER™ is proven to maximize utility and ease of use with seamless integration of onboard systems. The architects behind PATHFINDER™ understand the critical needs and challenges of the operator, and are dedicated to delivering the best end-user experience possible.

Design Principle

PATHFINDER™ uses an easy to navigate interface to simplify and consolidate mission execution tasks. This provides painless command and control of onboard navigation, communication, and peripheral electronic equipment. Optimizing user tasks directly enhances task efficiency and accuracy, and reduces operator workload. With the defense industry's most common operationally critical features already implemented, PATHFINDER™ can be rapidly integrated to any existing airframe, ground vehicle, or easily customized to support your unique project. Our modular design approach assures the perfect fit, even for budget-conscious implementations.



PATHFINDER
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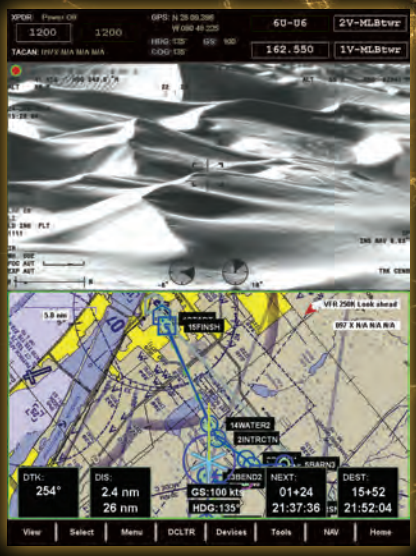
CAPABILITIES



CONFIGURABLE MISSION SYSTEMS INTEGRATION

PATHFINDER™ integrates and commands a variety of avionics, navigation, mapping, communication, and control systems to meet the demands of a variety of environments. Existing implementations include Multiband Radios, EO/IR Sensors, GPS/INS, TACAN, ESIS, G1000, and more.

A heavy piece of equipment is like a ball and chain to missions that need those critical pounds. PATHFINDER™ also provides significant physical benefits in that it minimizes space, weight, and power by reducing the need for expensive control heads from each device integrated into the software suite.

The driving philosophy behind PATHFINDER™ 2.0 is to empower the user through maximizing ease of use and simple graphical interfaces for these complex systems. This approach reduces training time and effort, and speeds the adoption by inexperienced and non-English speaking users.

STATE OF THE ART TACTICAL MAPPING

Most common vector and raster map formats are supported by a state-of-the-art 2D/3D mapping engine. Combining maps and navigation tools with overlays and information from common third party sources such as Falconview and Google Earth ensures broad compatibility and the ability to function in many different mission roles.

An intuitive and consistent interface is an absolute necessity. Previous real-world mission experience led the TFG team to incorporate an array of specially designed toolsets that increase situational awareness of the mission, equipment, and environment, while reducing the user's workload during critical mission phases. With available interface plug-ins for standard mission planning systems, PATHFINDER™ provides the critical link to pre-mission planning and post-mission data analysis, resulting in a one-source full mission cycle solution.

LEADING-EDGE HD VIDEO PROCESSING AND WEAPONS INTEGRATION

PATHFINDER™ is a native link between the user, weapons systems, and EO/IR/Laser Designator systems. As a unifying partner in these architectures, the system effectively calculates target locations for advanced precision-guided munitions, and provides an intuitive interface for pre- and post-launch constraints, or Launch Acceptance Regions (LAR).

Along with displaying crisp high resolution video natively at its highest quality, users can also easily record the video and store it for easy off-board analysis. When integrated with a weapons system, the combined ability to enhance locating, observing, and destroying a target makes PATHFINDER™ a true force multiplier for any ground or air platform.

OUR COMMITMENT TO OUR PARTNERS

TEK Fusion Global, Inc. is a diverse team of engineering and integration experts, including years of experience in the US Special Operations community. President Kelly McDougall believes in cohesive, long-term partnerships formed between TFG, other flexible and innovative companies, and end-users. This enables tighter integration between each of them, and paves the way for innovative solutions that better meet requirements, faster, and in a more affordable way.

TECHNOLOGY

USER-CENTERED DESIGN

- PRESET MISSION CONFIGURATION
- INTUITIVE INTERFACE
- OPEN ARCHITECTURE ENABLES RAPID DEVICE INTEGRATION
- EASILY ADAPTABLE TO AIR, GROUND, AND MARITIME PLATFORMS FOR BOTH DEFENSE AND COMMERCIAL APPLICATION
- ONBOARD SYSTEMS CONTROL AND INTEGRATION FOR REDUCED SPACE, WEIGHT, AND POWER

DEVICE INTEGRATION

- SOFTWARE CONTROL INTERFACES FOR DEVICES
- MILITARY AND COMMERCIAL COMMUNICATIONS, NAVIGATION, AND SITUATIONAL AWARENESS SYSTEMS
- SENSORS:
  RAYTHEON, L-3 WESCAM, FLIR
- NATIVE 1080P/SMPTE 292M VIDEO
- PRECISION WEAPONS SYSTEM INTERFACE FOR LASER CODE ARBITRATION AND WEAPON CONSTRAINTS INDICATION
- SUPPORTS MOST COMMON INTERFACE PROTOCOLS
  MIL-STD-1553/1760
  RS-232/422/485
  ARINC 429, ETHERNET, DISCRETES

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