



TECHNOLOGY

WEAPONS INTEGRATION

- > **GUNS:**
 - GAU-19A/B
 - M-134
 - M2/M3
- > **ROCKETS:**
 - APKWS
 - HYDRA 70
 - M260
 - M261
 - M261-M (12 SHOT)
- > **MISSILES:**
 - AGM114/HFII (K-N)
 - GRIFFIN A & B
 - GROWTH PATH INCLUDES ADVANCED WPNS, AGM114R
- > DWMS INTEGRATES SEAMLESSLY WITH PATHFINDER™ MISSION PLANNING, MAPPING, AND NAVIGATION SOFTWARE
- > SUPPORTS SMART LAUNCHERS (M299 OR M310) AND MISSILES ON LIGHTWEIGHT LAUNCHERS

MIL-SPEC STANDARDS

- > DWMS WMU DESIGNED TO MEET:
 - MIL-STD-810G
 - MIL-STD-210C
 - MIL-STD-704
 - MIL-STD-461F
- > SAFETY MEETS DO-178C DAL D

INTERFACES/PROTOCOLS

- > **NATIVELY SUPPORTED:**
 - GIGABIT ETHERNET
 - USB 2.0/3.0
 - (TIA)RS-232/422/485
 - ARINC 429
 - MIL-STD-1553B
 - VGA, DVI, HDMI
 - HD-SDI AND 3G-SDI
 - SMPT 292M/424M

INTRODUCTION

Digital Weapons Management System (DWMS) is designed from the ground up with a cutting edge object-based graphical user interface (GUI) developed by former special operations aviators based on real-world experience. DWMS is a software-based configurable system with a hardware ARM-SAFE infrastructure. DWMS is designed to readily support both legacy and emerging weapons systems in a tactically optimized manner, while reducing size, weight, and power.

FEATURES

- > Modular
- > Lightweight
- > Scalable
- > Compact
- > Rugged
- > Adaptable
- > NVIS Compatible
- > Ease of Use
- > Touch & Bezel Interfaces
- > Impedence controlled connections
- > Single Source Solution

DESCRIPTION

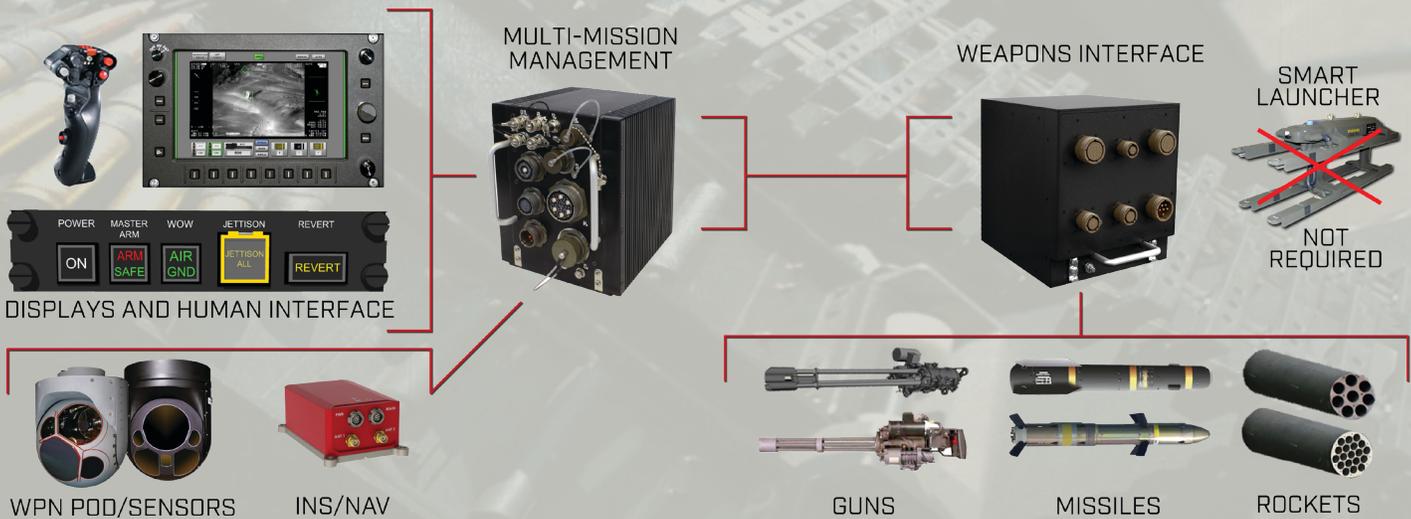
DWMS is designed to use the aircraft's EO/IR monitor as the WMS interface using a touchscreen and bezel GUI. The system is fully integrated with FLIR and L-3 WESCAM Gen II sensors. Critical EO/IR functions can be controlled through the user interface. DWMS provides aircraft steering commands and targeting overlays to guide the pilot into proper launch constraints. This reduces pilot workload, and improves the probability of hitting the target.



DWMS

CAPABILITIES

INTEGRATED MODULAR WEAPONS MANAGEMENT



DWMS WEAPONS MANAGEMENT UNIT

The DWMS system consists of three main components; the Weapons Management Unit (WMU), the Weapons Expansion Module (WXM), and the Stores Management Panel (SMP). The DWMS WMU provides a 64-bit Intel-based processor running an embedded operating system in a 3U VPX form factor. The WMU manages:

- Communication with the EO/IR system
- One 1080P touch & bezel display
- Cockpit I/O: user interface, stores management
- Interface with one or more WXMs

For connectivity, expansion, and growth, the WMU provides several interfaces on its TV-CTV Series III 38999 connectors. Impedance-controlled Quadrax contacts provide one 1000BaseT gigabit Ethernet, one Super-Speed USB3.0, two High-Speed USB2.0, one 100BaseT Fast Ethernet, and one HDMI interface.

Additional digital inputs and outputs include two (TIA)RS-232, two (TIA)RS-422/485 full duplex, and sufficient avionics discrete I/O for system state control and sensor control.

Both 75-Ohm coaxial and 100-Ohm differential SDI video inputs are provided for sensor video input. Optional expanded interfaces include four ARINC-429 transceivers and two dual-channel MIL-STD-1553B interfaces.

DWMS WEAPONS EXPANSION MODULE

The DWMS WXM is an integrated modular system that provides interfaces to various weapons systems. In a standard configuration, the WXM supports four Hellfire missiles, two Hydra 70 rocket pods (up to 19 shot), and two DC battery gun GCU/GIUs.

The WXM is designed to be highly configurable to a customer's needs, interchanging connectors and faceplates to support the weapons systems desired.

TV-CTV Series III 38999 connectors provide interfaces to each specific weapons system and an umbilical connector to the DWMS WMU. The WXM has a second umbilical connector to support daisy-chaining multiple WXMs. The WXM is rated for a 50A load (up to four hellfire missiles active simultaneously plus other weapons systems). Additional Hellfire missiles are supported with the addition of another WXM.

DWMS SOFTWARE

The DWMS software offers unparalleled ease-of-use in a weapon system by incorporating years of operational experience with expert interface design principles. Employing weapons, adjusting configurations, and monitoring status are easily accomplished by navigating intuitively organized touch menus. Training time on your weapon system can be significantly reduced, allowing you to focus on other critical tasks.

EQUIPMENT

WMU

HEIGHT: 8.75"
WIDTH: 6.25"
DEPTH: 8.50"
WEIGHT: 20 LBS



WXM

HEIGHT: 7.50"
WIDTH: 7.50"
DEPTH: 9.25"
WEIGHT: 10 LBS



WMP

HEIGHT: 3.00"
WIDTH: 5.75"
DEPTH: 6.00"
WEIGHT: 1.7 LBS

