Overview

D-VE​X is award-winning motion imagery Processing, Exploitation and Dissemination (PED) software that delivers significant productivity and intelligence benefits for Intelligence, Surveillance and Reconnaissance (ISR) operations.

One of the most pressing challenges facing ISR users today is how to efficiently process and manage the large volumes of video imagery collected from unmanned aerial vehicles (UAV) and surveillance aircraft. The practical software tools provided by D-VE​X solve this problem by accelerating key intelligence value extraction from accumulated full motion video, enabling confident and timely mission analysis and reporting.

With the ability to synchronise and display mission data from multiple ISR platforms and sensors, D-VE​X simplifies video processing, exploitation and dissemination for military, government, public safety and commercial ISR operations.

D-VE​X has an operationally proven track record and boasts demonstrated plug and play interoperability with STANAG 4609/NGA MISP compliant manned and unmanned ISR platforms. D-VE​X has low training and operational support requirements and delivers a cost-effective solution for leveraging vital intelligence from airborne sensor imagery.
In-field processing

D-VEX complements existing ground control and mission planning software by providing operators of ISR platforms with easy-to-use tools to derive, manage and distribute critical intelligence from the full motion video gathered, for immediate tactical advantage.

Improve situational awareness

D-VEX helps operators gain better situational awareness and ensures critical events are not overlooked by providing low latency video display, instant replay and moving map.

Instant access enables fast reporting

D-VEX supports Phase 0 and Phase 1 imagery analysis, providing tools to allow operators to exploit live imagery and to communicate intelligence as situations develop, using map chips and georeferences images.

Automated Target Indication

Automated target indication from Sentient Vision Systems (Kestrel Land MTI and Kestrel Maritime)* makes it easier for analysts to detect, analyze and report on targets and events.

Benefits

- Rapid fielding with any UAV or manned surveillance platform
- Sensor agnostic
- Speeds up mission tempo
- Improves imagery interpretation
- Reduces operator fatigue
- Enhances situational awareness
Retain mission-critical knowledge
D-VEX maximises the value extracted from surveillance imagery by providing a searchable, geo-referenced video library in which collected video can be archived and retained for immediate retrieval. The gaining of deeper insights into your operational area is accelerated with end-to-end data management and search functionality that condenses thousands of hours of mission data and assists the authoring of post-flight intelligence products.

Ground-based video replay
D-VEX provides a ground-based, off-platform replay system for multi-channel flight recorders and tactical computers. D-VEX complements existing on-platform systems with efficient on-the-ground analysis, reporting, cataloguing and archiving capabilities.

Perform detailed post-mission event analysis
D-VEX provides Phase 2 and Phase 3 post-mission imagery exploitation and reporting. It allows operators to instantly search for and retrieve the precise event of interest out of thousands of hours of collected video.

Create reports for timely information sharing
D-VEX accelerates the generation of mission presentations, efficiently condensing hours of flight time into minutes of actionable intelligence using highlight videos, snapshots, map chips and annotations.

Facilitate training and mission lessons
Imagery from every mission can be returned for assessment and training purposes, used for informing new arrivals and ensuring valuable field experience doesn’t disappear with every troop rotation.

Ensure retention of video evidence
Keep video and metadata from every mission in long-term storage for on-going investigations, event and location cross-referencing and legally mandated archiving requirements.

Benefits
- Facilitates detailed forensic analysis
- Enables identification and reporting of geo-coordinates
- Strengthens collaboration and access to mission-sensitive information
- Scales to meet operational needs
- Intuitive interface fast tracks operator training
Internationally available

Features and Specifications
D-VEX supports flexible deployment options from single user ruggedized tablets and laptops through to scalable multi-user systems. The software is available in a number of different configurations.

Feature Set

Record
- Scalable video and metadata recording and import
- Conversion to STANAG 4609 / NGA MISP compliant data
- Video remediation and normalization without transcode
- Chat room indexing
- Video switching and re-broadcast

Enhance
- Low latency video display with instant replay
- Event and location-based navigation
- Synchronous multi-display
- Smooth playback from frame-step through to 32x
- Video enhancement filters
- On-screen distance and area measurement
- Configurable Heads Up Display (HUD)
- Moving map displays
- Graphical video and snapshot annotation
- Automated Moving Target Indicator (MTI)

Search
- Search archive by geo-location, time and keyword
- Search user tags and intelligence products
- Compare current view with historical imagery

Manage
- Tag and describe events of interest
- Store and link video with intelligence products and reports
- Export and sync data between systems

Share
- Extract and publish geo-registered snapshots and video clips
- Export geo-location information (KMZ)
- Export mission and contextual data
- Create Powerpoint presentations and briefings

Configuration Description
D-VEX Video imagery analysis and data management software providing users with tools to search, organise and analyse their collection of motion imagery.

D-VEX Live
D-VEX Live includes real-time video processing and analysis tools, including stream recording, instant replay, time shift playback and chat room indexing.

D-VEX Team
D-VEX Team enables multiple users to work collaboratively on live and archived missions. D-VEX Team allows sites to easily scale up the number of users and live streams.

Technical Specifications

Supported Standards and Formats
- STANAG 4609 / NGA Motion Imagery Standard Profile (MISP) compliant, including:
  - Standards 0902, 0801, 0102, 0604, 0903 and EG 0104
  - ESD Carried in Closed Caption fields (Line-21)
- Video
  - AVC (H.264) Base, Main & High Profile
  - HEVC (H.265) Main and Main 10 Profile
  - MPEG-2 Main and 4:2:2 Profile
- Audio
  - MPEG-1 & 2 Layer-I and II
  - AAC-LC, HE-AAC
- Image
  - NITF 2.1, JPEG, BMP, PNG, PPM, TIF

Supported Features
- Playback
  - View up to 9 video channels in multi-display*
- Recording and storage
  - Record up to 30 HD video streams simultaneously per server*
  - mIRC chat ingest
  - Archive stores up to 100,000hrs of video data
- Mapping Clients
  - FalconView™
  - Google Earth™
  - WMS Map Servers
- Automated Target Detection
  - Automated Target Detection (sold separately)

Minimum System Requirements
- Windows® 7, Windows 8 or Windows® Server 2012
- Graphics cards must support OpenGL® version 1.5. (NVIDIA® cards recommended)
- RAM Needed: 8GB minimum

* depending on hardware and license.

©2018 General Dynamics Mediaware. All rights reserved. General Dynamics Mediaware reserves the right to make changes in its products and specifications at anytime and without notice. All trademarks indicated as such herein are trademarks of General Dynamics. All other product and service names are the property of their respective owners. ® Reg. U.S. Pat. and Tm. OW. Image of UAV being hand launched used with permission. Crown Copyright 2011, NZ Defence Force.

**For U.S. Department of Defense customers, D-VEX is known as TAC-MAAS, a key product in General Dynamics Mission Systems’ portfolio of ISR exploitation solutions.

18-20 Brindabella Circuit • Canberra Airport ACT 2609 Australia • Phone +61 2 6163 8700 • hello@gdmediaware.com.au • www.gdmediaware.com.au
Europe/Italy • Stanley & Clark Srl • Phone +39 3359393274 • info@stanleyclark.eu
North America** • General Dynamics Mission Systems • Phone +1 703 263-1406 • MAAS.Sales@gd-ms.com
South America • Fidelitad • Phone +1 509 637 3938 • alejandro.pita@fidelitad.com

20180110 pe