

# DVIP Multimedia Incorporated

## EXECUTIVE SUMMARY

“A SNAPSHOT OF THE FUTURE”

DVIP Multimedia Incorporated (DVIP) produces and markets advanced software technology to the digital imaging industry. It is an early stage, digital imaging company with patented and proprietary imaging technologies that enables unprecedented imaging performance from inexpensive imaging systems.

DVIP technology products enable the "film" in digital imaging systems to obtain orders of magnitude improvement in clarity and brightness over conventional systems and enables post-processing software to correct complex image distortions with unprecedented precision, automation, and simplicity. The products under development at DVIP overcome the major hurdles faced by the majority of millions of image sensors produced for digital imaging applications and burst through the processing limitations faced by millions of post-processing software users. DVIP has an experienced management team, emerging development and manufacturing partners and seed funding.

Using DVIP hardware and software technology, present camera and camera software limitations are removed. Digital pictures and video can be taken in more diverse (lower) lighting conditions, and many historically objectionable distortions such as blurs, noise, saturation, and low contrast are virtually eliminated. With DVIP's technology, camera makers will finally supply distinct, superior technology that enhances user confidence and productivity in mission critical applications. Post-processing software makers will supply tools capable of the precise automatic removal of the underlying source of image distortions based on physics. The end user will obtain sharp images in variable, uncontrolled lighting conditions and have access to distortion free, high contrast images for improved compression and analysis. DVIP hardware and software products will help camera and software developers to achieve heightened performance without a major redesign of their existing platforms. DVIP technology is based on ten years of research.

The Company is targeting key segments in the combined \$5.1 billion digital content creation (DCC) software and semiconductor image sensor market. InStat/MDR analysts report digital image sensors to be one of the fastest growing and most resilient sectors of the semiconductor industry estimating more than 140 million sensors were produced in 2002. This number is expected to grow at a rate of 60% CAGR over the next five years. DVIP embedded software products can help more than 70% of these chips take more accurate pictures, benefiting digital still and digital video cameras across the entire imaging spectrum. Although buffeted by the proliferation of digital image sensors, the \$2 billion DCC software marketplace is stagnated. Amateurs and consumers are not buying DCCs because of software interface complexity, it's too hard to use. DVIP software and imaging platforms enable an automatic "one-click" image correction that greatly simplifies the user interface and unleashes pent up mass-market demand for simple DCC software.

The Company's sales strategy is to directly sell its enabling hardware and software products to original equipment manufacturers (OEMs) and DCC software developers in this space. The Company product strategy is to make hardware products that help existing camera makers achieve heightened performance from their existing camera platforms and to supply novel enabling methods to the software makers that empowers and automates their existing image and video post-processing software. DVIP will utilize its management team contacts to facilitate the insertion of its technologies in the next generation of digital imaging systems.

Damon L. Tull, Ph.D. and Aggelos Katsaggelos, Ph.D serve as the management team for the Company. Together, they bring decades of digital signal processing, project management, and business experience. Dr. Tull founded DVIP. DVIP's advisory board consists of highly qualified industry professionals with experience from the nation's top companies and university centers.

## Technology Products & Services

### ABOUT DVIP MULTIMEDIA

**D**VIP Multimedia is a digital imaging company with patented and proprietary software technology that simplifies digital imaging and improves digital image quality. DVIP products enable enhanced performance in mission critical digital imaging for homeland security, photography, and diagnostic imaging. DVIP engineering talent has made numerous technical contributions. This experience can be brought to bear on your imaging problem.

Welcome to the next level of digital imaging system versatility and performance.

### TECHNOLOGY SERVICES

DVIP offers professional services in the following areas:

- Custom Product Development
- System Design
- Consulting / Expert Testimony
- Technology Evaluation
- Training

### CUSTOMER BENEFITS

**EXTRAORDINARY EXPERTISE:** DVIP team members have made more than 300 technical contributions in publications, books, patents, and multimedia standards. The DVIP team understands the challenges of digital imaging systems and brings a wealth of deep experience to solving your imaging challenge.

**WE DELIVER:** DVIP engineering talent developed world class algorithms that corrected distorted Hubble Space Telescope imagery; restored classic Walt Disney films; enabled multimedia imaging standards including MPEG-4 and JPEG-2000. With our experience, you can confidently out-source your development to DVIP and expect high quality solutions delivered on time and on budget.

### AREAS OF EXPERTISE

#### CUSTOM IMAGING PRODUCTS

- Custom still & video cameras
- High speed imaging systems
- Full spectrum (UV thru LWIR)
- System simulation
- Image sensor development

#### MILITARY STANDARDS

- Motion Imagery Standards Profile (MISP)
- National Imagery Transmission Format (NITF)

#### APPLICATIONS

- Digital Photography
- Homeland Security/Surveillance
- Medical imaging

#### CUSTOM ALGORITHMS

- Digital Image & Video Processing
- Restoration/Concealment
- Compression (MPEG-1,2,4, JPEG 2K, H.26X)
- DSP/FPGA Programming
- C/C++, MATLAB, JAVA, VHDL
- MS Windows and Linux/UNIX

### MEMA<sup>TM</sup> DIGITAL IMAGING

The engineers at DVIP have designed **MEMA<sup>TM</sup>** - a meta-data enabled, meta-data aware digital imaging platform capable of an automatic physics-based correction of images and video degraded by complex image distortions. The key innovation of this patented technology is the derivation and utilization of a unique enabling class of meta-data. This meta-data fills the knowledge void that currently makes image and video enhancement a frustrating, ambiguous guessing game.

MEMA provides a greatly simplified software user interface and heightened imaging system performance in mission critical homeland security, photography, diagnostic imaging, and scientific imagery.

MEMA turnkey imaging platforms, embedded camera software and chip IP is for digital imaging original equipment manufacturers and component suppliers seeking a clear competitive advantage in the digital imaging industry.