



**For Immediate Release**

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## **TWAIN Working Group and PDF Association Announce PDF/raster: The Next-Generation Format For Imaging**

*PDF/raster provides the portability of PDF while offering the core  
functionality of TIFF, Bitonal, Grayscale*

**Raleigh, NC and Boston, MA – August 30, 2017** – The TWAIN Working Group (TWG) and the PDF Association, both not-for-profit organizations designed to foster universal public standards, today announced the joint publication of PDF/raster 1.0, a subset of the PDF specification suited to the needs of resource-constrained imaging systems.

PDF/raster is a strict subset of the PDF file format. It was designed for storing, transporting and exchanging multi-page raster-image documents, especially scanned documents. PDF/raster provides the portability of PDF while offering the core functionality and support of TIFF. Bitonal, grayscale and RGB images. Compression options include JPEG, lossless CCITT Group 4 Fax and uncompressed.

PDF/raster was created via a collaboration between the TWAIN Working Group, which originated the PDF/raster concept, and the PDF Association, which provided PDF technology expertise and perspective as well as means of communicating with the PDF software industry to ensure a diverse range of relevant viewpoints was represented. PDF/raster is part of the TWAIN Working Group's new TWAIN Direct specification -- the first zero-footprint, cloud-based version of its royalty free open standard protocol that allows applications to talk directly to document scanners without the need for vendor specific drivers. PDF/raster provides image-only file format guidelines that can be implemented across a wide range of scanners. It is designed to be efficient to implement on any scanner, to be easy to parse by applications, and to be 100% compatible with PDF and PDF-consuming applications.

“Working with the experts from the PDF Association ensured the standard would be a proper subset, achieve our compatibility goals and avoid common mistakes,” said Jon Harju, CTO of Visioneer and the TWAIN Working Group's Chair and lead on the project.

“We have now developed a new PDF subset specifically for imaging devices, and it is the file format required by our new TWAIN Direct specification. Working with the PDF Association on this project was an amazing experience and allowed us to turn out a solid PDF/raster specification for adoption in the imaging market.”

“We’re very pleased to have worked with the TWAIN Working Group on this project,” said Olaf Drümmer, the PDF Association’s technical lead on development of PDF/raster as well as the organization’s former Chairman. “We think PDF/raster is a critical step in paving the way to adoption of PDF as the native file-format for image acquisition,” he said.

Although for imaging purposes PDF/raster imposes many restrictions on PDF content and layout, implementers gain from the following benefits:

- files can be read and written without a full PDF parser or generator
- files can be created efficiently from raster images
- files can be generated using a fixed-size raster data buffer
- less than 1KB is required per page in order to generate a multi-page file
- images can be located and read efficiently with comparatively simple code
- PDF/raster files can be quickly and easily identified as such by software
- PDF/raster supports effective and readily available compression algorithms

PDF/raster has important advantages over the full PDF format for storing scanned documents:

- the exact original raster image data can be recovered
- a complex rendering engine is not required
- it provides a precise, well-defined target, simplifying engineering design and testing

PDF/raster retains optional PDF security and authentication features useful for protecting content in a variety of implementations:

- encryption is allowed, useful for access-control purposes
- digital signatures are allowed, useful for authenticating content and for applications that require verification of the document origin, authenticity, date or time of creation, and so on

PDF/raster has important advantages over TIFF and JPEG for storing scanned documents:

- Compared to TIFF, it has far fewer and simpler variants.
- Compared to TIFF, compression is simpler and better standardized and supported.
- Compared to TIFF, PDF files can be natively viewed and printed on more platforms.

- Unlike JPEG, it is natively multi-page and handles bitonal images

An open industry standard, PDF/raster is available royalty-free, and may be freely download from both the PDF Association ([pdfa.org](http://pdfa.org)) and the TWAIN Working Group ([pdfraster.org](http://pdfraster.org)).

### **About the PDF Association**

First established as the PDF/A Competence Center in 2006, today, the PDF Association is an international organization promoting awareness and adoption of open standards in digital document applications using PDF technology. The association facilitates education, networking and communication, and the sharing of expertise and experience with interested parties worldwide. The current membership includes over 100 enterprises and numerous individual subject-matter experts from more than 20 countries.

The management board includes industry leaders from Adlib Information Systems Inc., Adobe Systems Inc., callas software GmbH, Datalogics Inc., Dual Lab, Foxit Europe GmbH, intarsys consulting GmbH, levigo solutions GmbH, Nitro Software Inc. and Satz-Rechen-Zentrum (SRZ). The association's chairman is Matt Kuznicki, Chief Technical Officer (CTO) of Datalogics Inc. The Executive Director is Duff Johnson, independent consultant and ISO Project Leader of ISO 32000 and ISO 14289.

### **About The TWAIN Working Group**

The TWAIN Working Group, established in 1992, is a not-for-profit association of industry leaders who have gathered to create a standard that benefits the imaging industry as a whole. TWAIN's purpose is to provide and foster a universal public standard which links applications and image acquisition devices. The ongoing mission of this organization is to continue to enhance the standard to accommodate future technologies. TWAIN generates multiple opportunities for application developers and users to access information and broaden the standard; through a developer's forum ([twainforum.org](http://twainforum.org)), main website ([twain.org](http://twain.org)), Wikipedia page and online self-certification process. Current members of the TWAIN Working Group include Visioneer, Inc., Panasonic System Communications Company of North America, Avison Inc., ExactCODE GmbH, Fujitsu Computer Products of America Inc., InoTec GmbH Organisationssysteme, Kodak Alaris, Atalasoft, Microtek, Inc., Picture Elements, Dynamsoft, Epson, ABBYY, PDF Association, HazyBits and Hewlett Packard. More information about the TWAIN API and imaging standard can be obtained on The TWAIN Working Group's Web site at <http://www.twain.org>.

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