

Learn more about PDF/raster and TWAIN's newest member company!



Welcome!

Welcome to the TWAIN Working Group Newsletter. The TWAIN Working Group is a not-for-profit organization which represents the imaging industry. 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. This quarterly newsletter is designed to keep you up to date on group initiatives, news and upcoming events.

PDF/raster - What Is It and Why Does It Matter To You?

While historically TIFF was a wide-spread industry standard to transfer bitmap images, network and mobile applications come with new requirements. The TWAIN Working Group therefore chose to base the file format used in the new TWAIN Direct standard, PDF/raster, on a well-defined subset of ISO PDF, as a basis for a modern and widely supported file format.

The idea behind PDF/raster is really quite simple. The world of scanners today transfers image data in raw and compressed format with minor variations between vendors. We are moving away from this to requiring fully formed files. TIFF is attractive because it supports the raw and compressed data formats produced by document scanners and has a very simple structure, however, TIFF has no standard encryption, signing or embedded meta data features. TIFF also has limited native platform support, legacy pixel flavors, and JPEG issues impacting user experience.

PDF natively supports the raw and compressed data formats produced by document scanners and already supports modern encryption and digital signatures and

metadata, however, PDF is very rich, and without setting some boundaries, scanner hardware and software vendors alike are uncomfortable with the idea of requiring a full PDF reader just to access the raw image data produced by a scanner.

PDF/raster is a way to get the best of both worlds. PDF/raster is 100% compatible with existing readers so a great user experience. It is not necessary to re-invent encryption and signing technology, yet it is highly restricted so it is not perceived as more complex than TIFF for hardware and software designers alike.

The vision with PDF/raster is for images to be born PDF from document scanners and transformed into rich PDF as needed throughout the document scanning workflow. It's easy to see that this approach could retire TIFF and see PDF as the perfect replacement, even outside of TWAIN Direct and document scanning solutions.

To learn more about PDF/raster, review the specification and view a full overview of PDF/raster as presented at PDF Days Europe, please go to pdfrafter.org



Some thoughts from the TWAIN Working Group's Newest Member, LEAD Technologies, Inc.

By Gabriel Smith, Technical Marketing Engineer, LEAD Technologies, Inc.

Filing cabinets. Why do they still exist? Over the years, I have been to various conferences, meetings, and roundtable discussions about the idea of offices going completely digital. No matter the organization, whether it be a small attorney's office or the US Federal government, it seems that the IT departments are ready, but the end-users are not. Even though benefits such as security, safety, and access seem obvious, end-users (especially attorneys) are still hesitant to take that leap. Why? Time and skill. I believe that end-users perceive that there is a time-consuming learning curve required to learn how to properly capture paper and then more time to do the capture. Fortunately, that is where [TWAIN](#) and [LEADTOOLS](#) can help. TWAIN provides the mechanism to efficiently convert paper to an image. LEADTOOLS enhances TWAIN by providing a common, customizable, and streamlined interface to the end-user.

Too many dialogs and settings. To reduce the learning curve and streamline the capture process, LEADTOOLS provides programmatic control of all TWAIN device settings. With LEADTOOLS, desktop and web developers can bypass the driver's built-in user interface and create a completely custom interface for all TWAIN devices. No longer will end-users be confused by a myriad of settings or different driver dialogs for each device. Developers can quickly create a common, streamlined, and easy to use capture interface tailored to the end-user's specific skills and workflow. Once the

capture is complete, LEADTOOLS helps to further streamline the process by offering advanced technologies such as image processing to correct common capture issues without the need to recapture. We further offer OCR to convert captured images to text-searchable and indexable document formats, barcode recognition and decoding, Bates stamping, forms recognition and processing, annotation, redaction, markup, and so much more!

As a new member of the TWAIN Working Group, we will have early development access to the new TWAIN Direct standard, which can be included in our solutions to implement imaging workflows, enabling applications for the desktop, mobile or in the cloud. We are excited about creating connection solutions that include [TWAIN Direct!](#)

Jon Harju Re-elected as TWAIN Working Group Board Chair

The TWAIN Working Group is happy to announce that Jon Harju, representing Visioneer, has been re-elected as Board Chair. Jon will plan to continue to work closely with the rest of the group to drive development of the TWAIN Direct standard, readying it for public release in 2019.

In addition to Jon's re-election, Joseph Odore, Product Manager, Document and Imaging of Panasonic Corporation has been elected Marketing Committee Chair. Joseph will work closely with Jon and Vice-Chair, Mark McLaughlin from Alaris to spearhead marketing efforts around the rollout of TWAIN Direct.

Jon is excited to be carrying the torch along with our other board and associate members to drive the TWAIN Direct 2019 launch!



TWAIN Has a New YouTube Channel!

[The TWAIN channel](#) features videos for software application developers and scanner manufacturers demonstrating easy scanning for every application using TWAIN Direct. Our videos demonstrate how communication between software and scanners can be enabled using TWAIN Direct protocol over a network or in the cloud, including mobile applications.

Videos featured include:

- TWAIN Classic to TWAIN Direct Development - Installing and Configuring the TWAIN Bridge
- TWAIN Direct Application - Installing and Scanning

- **TWAIN Direct - Sample Code Files and Certificates**
- **TWAIN Direct Cloud Demonstration using a Fujitsu scanner**
- **TWAIN Direct Cloud Demonstration using an Epson scanner**
- **TWAIN Direct Cloud Demonstration using an Alaris scanner**
- **TWAIN Direct Cloud Demonstration using a Panasonic scanner**

[Subscribe to our channel today](#)

Board Member Spotlight

ExactCODE;
SOLUTIONS THAT JUST WORK, EVERY DAY.



"TWAIN is important for ExactCODE as a truly open, standard driven industry reference for scanner drivers. With support for all major operating systems, platforms and devices, it is a solid foundation to integrate scanners into the user's workflow. But the best is yet to come: While currently working on TWAIN Direct and TWAIN Cloud, ExactCODE is looking forward to a vendor neutral way to access network connected scanners without the need to install drivers, as well as solid support for mobile applications. TWAIN Direct intends to replace various proprietary vendor network protocols to allow simple and reliable scanning with a just a touch from a tablet PC or smartphone. A win-win situation for all participants of the imaging and document capture industry. With the emerging PDF/raster standard, the foundation for standard conforming, vendor neutral, and secure network image transfers, the TWAIN Working Group is also contributing best practices for portable and secure image transfers in a networked environment." - René Rebe, CEO & Founder ExactCODE GmbH

ExactCODE GmbH is a major provider of Mac and Linux software for a digital, paperless office, including the document capture applications ExactScan. Since its founding in 2006, the company has developed a modern and complete in-house image processing software stack, from scanner drivers, image processing, enhancements, PDF libraries, barcode recognition and OCR. Its document capture suite ExactScan also comes with over 400 built-in drivers for many professional document scanners for use on macOS and Linux. ExactCODE develops and researches image processing and embedded software, made in Berlin, Germany; and is an active contributor to various open source projects.

Panasonic



"Panasonic has been a leading manufacturer of document scanners for the last 25 years. Since the launch of our document scanning division, Panasonic has designed our hardware driver technology on the open source specifications developed and published by the TWAIN Working Group. So why TWAIN? The answer is simple. TWAIN provides a universally compatible and adopted platform for image acquisition applications. This provides Panasonic with the ability to create compatible and easy to integrate document scanning solutions while having the flexibility of customizing the user experience and unique feature set. As an active Board member, Panasonic is able to provide insight and experience which will be part of the future TWAIN specifications, including the new TWAIN Direct technology which will be the future of driverless and network-based image acquisition." - Joseph Odore, Product Manager, Document & Imaging, Office Product Business Unit, Panasonic Corporation

Since the founding of our company in 1918, we at [Panasonic](#) have been providing better living for our customers, always making "people" central to our activities, and thus focusing on "people's lives." Going forward as well, based on our innovative electronics technology, we will provide a wide variety of products, systems, and services, ranging from consumer electronics products to industrial devices, building products, and housing. In various spaces and areas, such as homes, communities, businesses, aviation and automobiles, we will continue to work hard to offer new value for better living, and help realize "A Better Life, A Better World" for each individual customer.

In addition to Panasonic's 100th year anniversary, Panasonic is also celebrating its 25th year of developing and manufacturing world class document scanners. Our award-winning line of document scanners, provide our customers with highly reliable and cost-effective solutions which are easy to operate and integrate. Panasonic will continue to innovate and develop products as well as offer true solutions which includes software and professional services.

Why Become a Member of the TWAIN Working Group?

Create the future! [Gain early access to development tools for TWAIN Direct](#). Join industry leaders in the creation and adoption of a new standard designed to embrace the versatility and power of cloud-computing: TWAIN Direct. By becoming a TWAIN member NOW, you will help ensure that TWAIN standards are balanced to meet the

broad needs of the industry and the specific needs of your organization and your customers. [More information about TWAIN Membership](#)

Recent News

- **LEAD Technologies Joins TWAIN Working Group as an Associate Member**
- **P3iD Technologies Joins TWAIN Working Group as an Associate Member**
- **ABBYY Joins TWAIN Working Group as an Associate Member**
- **HazyBits Joins TWAIN Working Group as an Associate Member**
- **TWAIN Working Group and PDF Association Announce PDF/raster: The Next-Generation Format For Imaging**
- **TWAIN Working Group Releases 2.4 Specification and Launches New Website**

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