# Electronic handwritten signature


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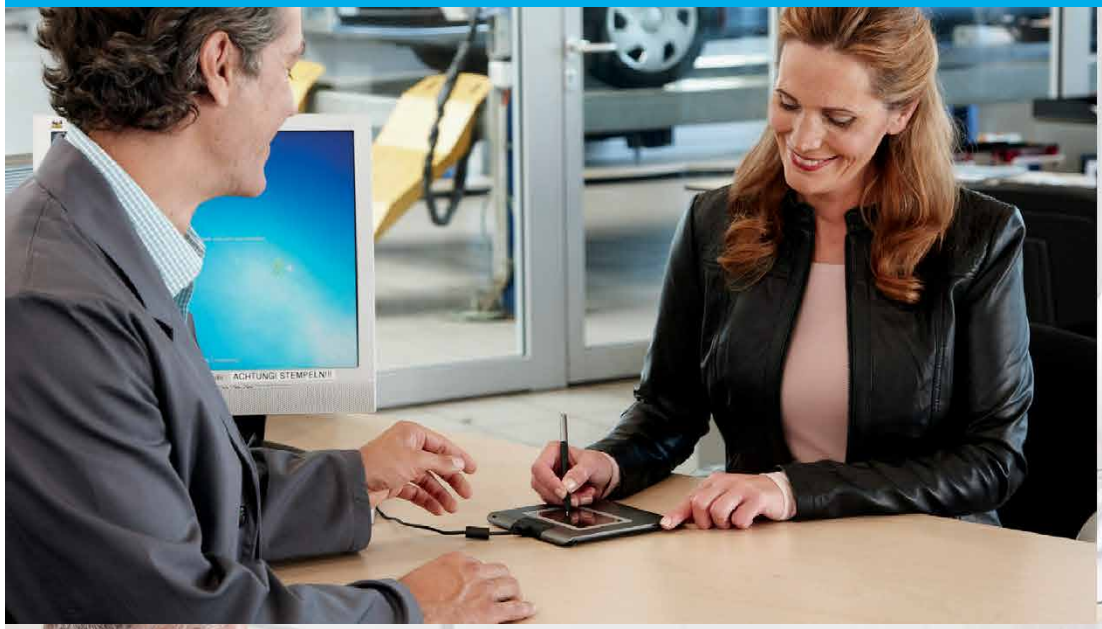
# Wacom – Leading the way

- Founded 1983 in Tokyo
- No.1 in signature hardware (revenue in Europe – March 31st, 2015)
- Including mobile devices (Samsung, Lenovo, Panasonic)
- 100 million units of pen component since 1991/90 million from 2011-2014
- In Europe since 1988 with its headquarter in Krefeld, Germany
- Pioneer in development of the pen for computer input
- Global market leader in pen tablets
- 1200 employees worldwide
- 580 million EUR annual revenue
- Worldwide 3 Billion documents signed on Wacom pads per year
- Largest installation Poste Italiane with 30.000 public desks.
- Signature Tablets with outstanding quality and durability

# Signature is used everywhere





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# The Times Newspaper



COMMERCIAL FEATURE

# WRITING'S ON THE WALL: NEW TECHNOLOGY TO HELP THE NHS GO PAPERLESS

*As the NHS struggles to meet its deadline to go paperless by 2018, a simple, secure piece of technology could help*

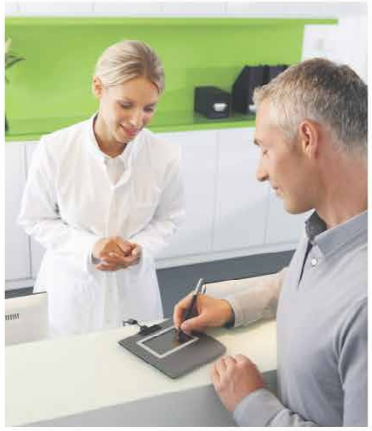
**Mark Hoole**
*eDocs UK key account manager*

**Set against this background is a particularly striking figure. According to PwC, some £4.4 billion could be invested back into the NHS with better use of information and technology. Added to this is the fact that nearly a fifth of all office floor space in the UK is devoted to storing paper. For an organisation which employs millions of people and serves even more, the costs arising solely from this one element of paper record-keeping by the NHS must be vast.**

In June 2013, Health Secretary Jeremy Hunt challenged the NHS to go paperless by 2018. "The NHS cannot be the last man standing as the rest of the economy embraces the technology revolution," he said. Paperless technology, Mr Hunt argued in a speech to the Policy Exchange think-tank, would not only help the health service to save billions of pounds, but it would improve services and help to meet the challenges of an ageing population.

The Health Secretary told his audience that patients should have compatible digital records so their health information can follow them around the health and social care system.

It's a laudable aim. The fact is, though, that with this deadline just three years away, now the NHS is struggling. By next month everyone who wishes to do so should be able to get online access to their health records held by their GP. There should also be a system of paperless referrals and, instead of sending a letter to the hospital when referring a patient, the GP should send an e-mail. A year ago a survey for *Health Service Journal* magazine of key stakeholders revealed that just 29 per cent believed the ambition to go paperless by 2018 was realistic.



> **One very easy-to-use and highly reliable piece of technology that is already common in many other sectors could benefit enormously the NHS ambition to go paperless – it's the electronic signature**

One very easy-to-use and highly reliable piece of technology that is already common in many other sectors, ranging from banking to local government, could benefit enormously the NHS ambition to go paperless – it's the electronic handwritten signature. This involves an employee or visitor signing with an electronic pen on to a screen as they would with a pen and paper. The benefits of the electronic version, though, are significant.

For example, there is no need for a single piece of paper to circulate in an office and risk getting lost, damaged or falling into the wrong hands. Private-sector organisations and now a growing number of public bodies around the world are also appreciating the fact that the various parties can sign a document even if they're not physically present in the office. This speeds up approval processes and other decisions hugely.

But not all electronic-signature technology is the same. "People worry about fraud because signatures aren't captured accurately," explains Mark Hoole, eDocs UK key account manager at Wacom Europe, the leading provider of electronic handwritten technology. "But our technology is more accurate and sophisticated than the scratchy, pixelated signature gadgets we've all used for a delivery, for instance."

Over the last few years commercial sectors around the world have been enjoying the significant benefits offered by electronic handwritten signatures. More recently they've been joined by an increasing number of public-sector organisations. As it continues its important journey towards becoming paperless, Wacom electronic handwritten signature technology can play a vital role in helping the NHS.

**£4.4bn**
could be invested back into the NHS with better use of information and technology
Source: PwC

**£1.3bn**
worth of prescriptions were dispensed in the community in 2013
Source: Health and Social Care Information Centre

**29%**
of key stakeholders believed the ambition to go paperless by 2018 was realistic
Source: *Health Service Journal* magazine

## Saving more than a billion pieces of paper with prescriptions alone

According to the Health and Social Care Information Centre, more than 1.03 billion prescriptions were dispensed in the community in 2013, compared with 649.7 million in 2003, an increase of 58.5 per cent. Currently many GPs are sending prescriptions electronically to pharmacists. However, the pharmacist then has to print them out for the patient to sign. An electronic handwritten device on the pharmacist's counter would make the system truly paperless, removing over a billion pieces of paper from the system and saving the NHS millions of pounds.

### How it works

Founded and headquartered in Japan, with offices in Europe, the United States and China, Wacom has been creating products and services, for some 30 years, that help industry leaders push the boundaries of film and 3D animation in industry design, digital art and game development. Having created pen technology for tablets, it began ten years ago to take the same high-tech, innovative approach to electronic handwritten signatures.

Wacom systems use highly sophisticated technology to ensure the greatest possible accuracy and security. Screens have a very high resolution and, along with the pens, they pick up minute biometric data including every movement and subtle nuance of the human hand as it writes. This could also mean the speed, force and angle at which the pen hits the screen. How i's are dotted and t's crossed, the way people create loops when writing, and even how long it takes for the person signing to move from one letter to the next are measured and recorded with minute precision.

"This remarkable level of accuracy, combined with the signature being captured only as a data stream using a Wacom pen and screen, means that signature fraud could become a thing of the past," explains eDocs UK key account manager at Wacom Europe Mark Hoole. "This is one of the reasons why so many banks use the company's technology. It also gives the experience of a natural signature."

Even with this high level of security, the systems are also flexible. Thanks to a wide range of pens, Wacom technology also works easily with tablets and smartphones. The screens and pens are remarkably tough. In one test, even after half a million signatures, the screen was unmarked.





Commercial Feature

# Now showing: movie technology that could save public sector billions

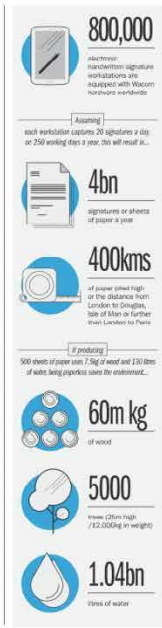
As the NHS and other public-sector organisations work to go paperless in 2018, a technology originally developed for digital imaging and movie innovation is leading the way

Mark Hoole
eDocs UK key account manager
Wacom Europe GmbH

**At first glance, it's difficult to see what the world of movie animation could have in common with procedures and reforms in the public sector. However, one company has taken the technology originally used in computer-aided design and film animation to create some of the most stunning and exciting box-office smashes, and is applying it to a routine business practice – the signing of a document.**

For around 30 years, Wacom – founded and headquartered in Japan, with offices in Europe, the United States and China – has been creating products and services that help industry leaders push the boundaries of film and 3D animation in industry design, digital art and game development. Having created pen technology for tablets, it began ten years ago to take the same high-tech, innovative approach to electronic handwritten signatures.

Over the last few years, banking and other commercial sectors around the world have been enjoying the huge benefits offered by electronic handwritten signatures, but now a growing number of public-sector organisations are beginning to use Wacom's technology to cut costs, speed up processes and achieve their sustainability targets.




The requirement to go paperless in 2018 is adding further impetus. Health Secretary Jeremy Hunt has called for any crucial health information to be available to staff at the touch of a button, while PwC calculates that £4.4 billion could be invested back into the NHS with better use of information and technology. Electronic handwritten signatures are a key part of this goal.

There is a wide range of benefits that flows from electronic handwritten signatures. For example, they avoid the need for a single piece of paper to circulate in an office during which time it could risk getting lost, damaged or falling into the wrong hands. Another advantage that the private sector and now public bodies around the world are discovering is that parties can sign a document even if they're not physically present in the office.

> Around 18 per cent of all UK office floor space is devoted to storing paper, so the cost-reduction of going paperless is huge

This digital technology offers significant savings. It's estimated, for instance, that around 18 per cent of all UK office floor space is devoted to storing paper, so the cost-reduction of going paperless is huge. Not only that, but electronic handwritten signatures are now accepted in legal proceedings, and their use is approved for various formal documents, such as passports, ID cards and access cards.

But not all electronic signature technology is the same, hence the concerns among many public and private-sector organisations. "People worry that signatures will not be captured accurately and so they are afraid of fraud," explains Mark Hoole, eDocs UK key account manager at Wacom Europe GmbH. "But what we offer is a world away from the crude, pixelated electronic-signature device that many people are familiar with when they've signed for a delivery, for instance."

Wacom systems use highly sophisticated technology to ensure the greatest possible accuracy and security. Screens have a very high resolution and, along with the pens, they pick up minute biometric data, including every movement and subtle nuance of the human hand as it writes. This could also mean the speed, force and angle at which the pen hits the screen, how i's are dotted and t's crossed, the way people create loops when writing, and even how long it takes for the person signing to move from one letter to the next are measured and recorded with minute precision.

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Even with this high level of security, the systems are flexible. Thanks to a wide range of pens, Wacom technology also works easily with tablets and smartphones. The screens and pens are remarkably tough. In one test, even after half a million signatures, the screen was unmarked. "What a lot of clients also like is that when no one is signing on it, the screen can be used to display important information and messages," adds Mr Hoole.

Electronic handwritten signatures offer so many advantages to the public sector and meet so many of its growing requirements. Now they have a product that, thanks to its superior technology, is safe, flexible and cost effective.

**For more information please visit http://signature.wacom.eu/**

## DTU – 1031

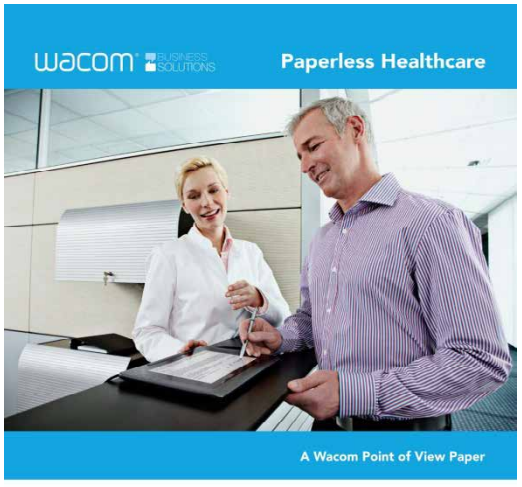
The DTU-1031's 10.1-inch signature display, state-of-the-art encryption and the ability to accept written input directly into the monitor makes it ideal for organisations that need a display with a minimal footprint, which allows users to view or complete full-size documents and sign them digitally.

## STU-530

With its 5-inch high-resolution colour LCD screen, the STU-530 is the ideal signature pad for high-traffic patient, visitor or client counters. It's very easy and comfortable to use thanks to its low-profile flat surface. In addition to capturing handwritten signatures, it can be used for branding, marketing or advertising purposes. The pen features 1,024 levels of pressure sensitivity for natural signature capturing. Each unit is assigned a unique hardware ID to identify any signatures signed on it.

Wacom

# Papers Available




**Location** United Kingdom

**Sector** Healthcare

**Focus** Digital Signatures: Join the Revolution & Achieve a Paperless Administration

**Digital Signatures**

In the best systems your signature is made on an active writing pad. The individual pressure profile, the writing rhythm, and the writing speed generate a unique biometric signature profile. Once the initial signature is made and authenticated subsequent signatures are immediately verified – or not, by the software.

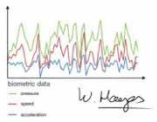
**Why should Healthcare use digital signatures?**

Those involved in a commercial transaction or messaging activity need to have confidence in communications reaching their destination unchanged and the sender identified. There may also be a need for it to reach its destination without being read by anyone else. Trust is the basis of business commerce and can be enhanced by the use of electronic signatures. Some types of electronic signatures can prove the origin of the message & show whether a message has been altered.

The paperless office is very much the Holy Grail and whereas some private companies appear to have made it in a "big bang", it is likely that progress for most organisations, especially those in Government, will be in a series of progressive steps. Digital signatures provide the essential key to this progress and are achievable now.

The NHS has already a target of achieving the paperless office by 2018. All parts of the Government are under similar pressure to achieve efficiencies, to save money and storage space by reducing the paper mountain.

With digital signature solutions, documents become self-contained, portable and sustainable. Electronic records are maintained in a non-proprietary format and Incorporating digital signatures into business processes facilitates the streamlining of approval processes, reducing costs of handling, distributing and archiving signed paper documents.




**Waiting for documents to be returned**

How many times in your organisation are you waiting for documents to be received for approval/ signed off? It may be a transaction within your own area, in the wider organisation or with other organisations, with suppliers and citizens. Don't wait on the postman, send it by email. Email is virtually immediate, so can your authentication process. Sending a document to be e-signed is as easy as sending an email and provides your own audit trail.

Signing and returning is even easier. E-signatures: fast, secure, green and legal. No overnighting, faxing or waiting. **Action this day!**

**Future of Healthcare**

The UK healthcare sector have many obviou where a signature is required to verify ide Crucially the NHS has been set a target paperless by 2018. Set against this backgr is a particularly striking figure.

According to PwC some £4.4bn coul invested back into the NHS with better u information and technology. Added to this fact that nearly a fifth of all office floor spa the UK is devoted to storing paper for an organisation which employs millions of peopl serves even more the costs arising solely from this one element of paper record keeping b NHS are almost certainly vast

There is a tremendous need to reduce paperwork within the NHS whilst maintaining or impr records security. Staff access to patient records can be enabled /restricted by use of c signatures. Greatly reduce the paperwork involved in patient registration, treatment waver discharge process, patient monitoring records and patient pathways yet produce good aud of actions taken and authorisations made.

Every visit to hospital seems to involve repeated updating and signing paper records. P satisfaction is improved by lowering waiting time. Hospital, clinic, and private practice costs re to printing, processing, scanning, archiving, and retrieving paper are dramatically reduced.

**Saving more than a billion pieces of paper with prescriptions alone:**

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**Wacom the leading provider of innovative digital signature solutions.**

Over the last few years, banking and other commercial sectors around the world have been enjoying the huge benefits offered by electronic handwritten signatures, but now a growing number of public-sector organisations are beginning to use Wacom's technology to cut costs, speed up processes and achieve their sustainability targets.

Wacom signature pads and pen displays in the public sector are used to complete and sign electronic forms. A modern, digital process, eliminates the need for scanning, uses up little counter space, and allows documents to be found quickly when needed.

The new, electronic document process saves time, which results in shorter wait times for citizens and more time for staff to provide valuable services. Departments and agencies save money, such as paper, ink, and can often eliminate printers and supplies completely as well as reducing document storage space.

These are "advanced "digital signatures not to be confused with basic "click & sign" systems . Wacom's eSignature solution meets or even exceeds the requirements of the electronic signature definition in the E-Signature Directive,

Electronic handwritten signatures can be an accepted part of several formal documents like passports, ID cards, and access cards.

Wacom signature pads are used to capture handwritten signatures with high resolution and generate biometric profiles embedded in the signature data for enhanced fraud prevention. Wacom signature pads are used widely at registration offices, law enforcement departments, and other authorities around the world.

Wacom technology provides a simpler more sophisticated process, than other systems. The tablets can easily be linked into your existing software systems. There is a range of robust signatures tablets for fixed locations or for peripatetic workers.

**You have control.** No third party is involved in storing your confidential data. The digital signature device does not store the signature but stores it in your server.

Wacom signature pads and pen displays are incredibly reliable and durable for years of continuous use within a demanding environment. If you have any questions about how Wacom might be able to help you with your public service project or to request Public Sector case study reading from across Europe, please contact us today.

wacom BUSINESS SOLUTIONS Mark Hoole (UK Public Sector Lead) / +44 7985 508 714 / Mark.Hoole@wacom.eu http://www.wacom.com/en-us/enterprise/business-solutions

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- Healthcare
- Government Justice
- Government Local Authority
- Government Public Sector
- Education
- Housing Authorities
- Blue Light Services
- Survey Results

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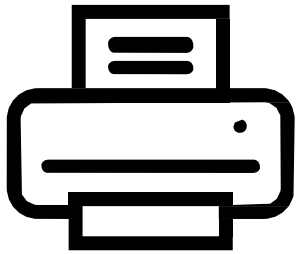
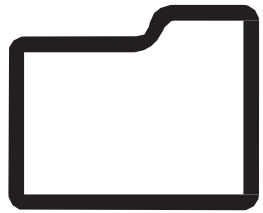
# Current signature workflow



Print

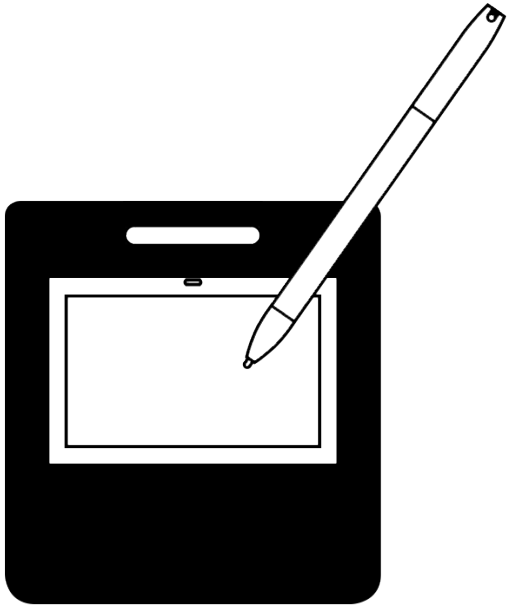
Sign on paper

Scan/eMail

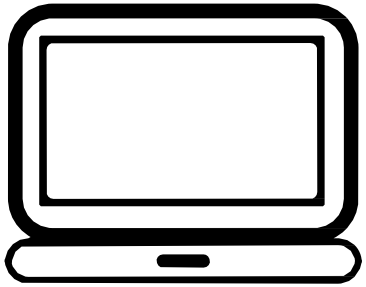


Archive

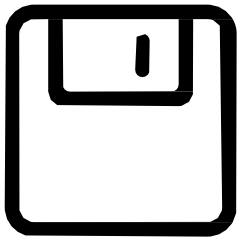
# Efficient signature workflow



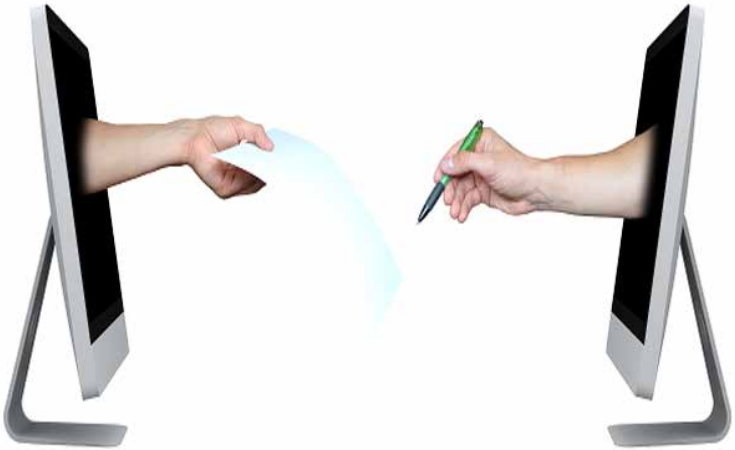
Capture signature



Digital document



Paperless archive



# Environment


# Why changing ?

- Reduces costs
- Increases efficiency
- Saves paper and protects our environment
- Quick Return on Investment, usually after 6 months
- Is Legally binding
- Culturally accepted means of indicating assent
- Robustness (tested with 500,000 signatures)




# Paperless Public sector

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# Paperless patient registration

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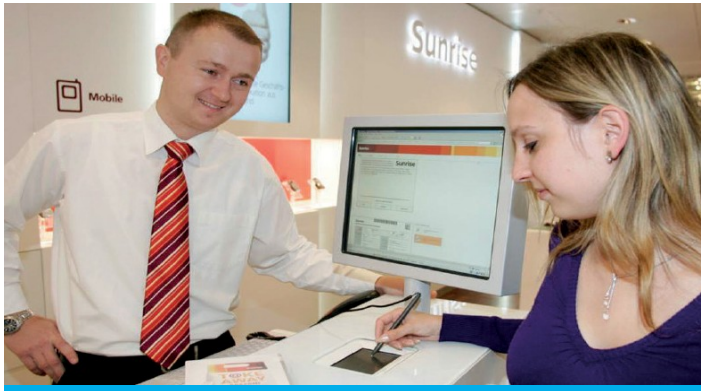
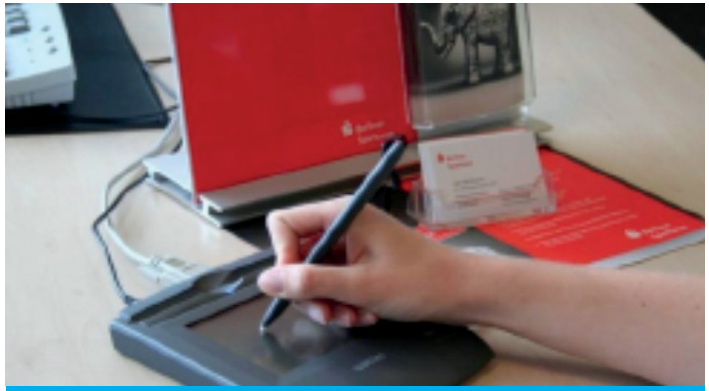
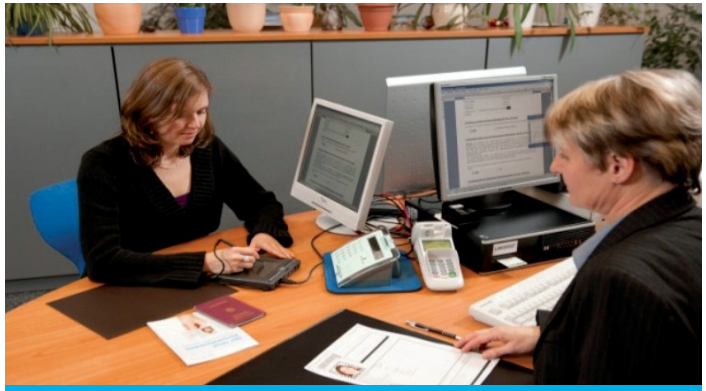
Point of Sale - IKEA




Telecommunication - SUNRISE

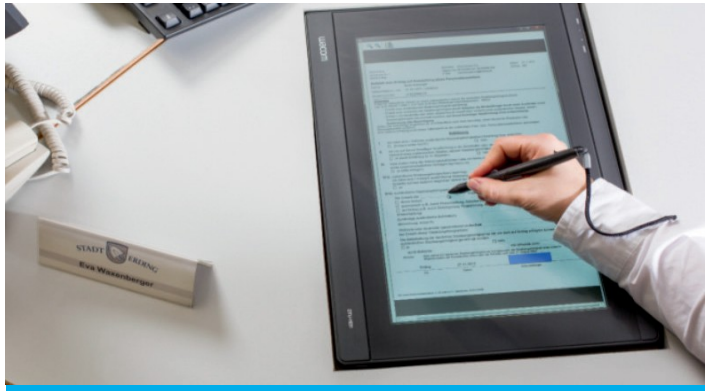


Banking - SPARKASSE



Public Sector – Berlin authorities

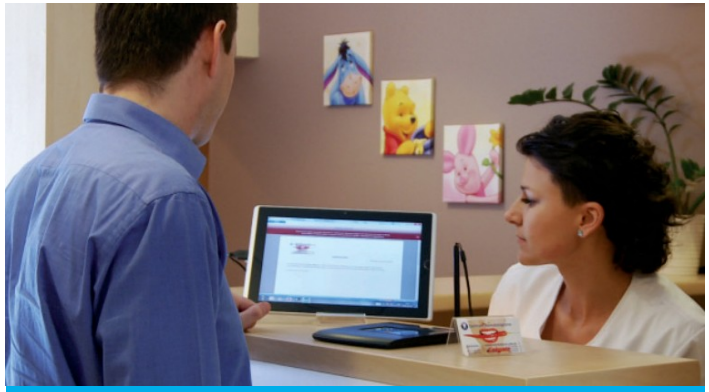
Banking - CECA



Public Sector – Erding registry office

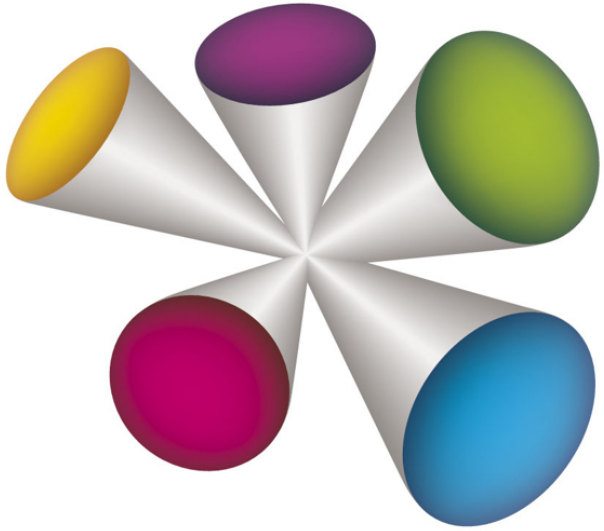

Telecommunication - TELEPASS

Banking – Banca Intesa Sanpaolo



Helthcare - Clinic Usmiech

# Why Wacom?



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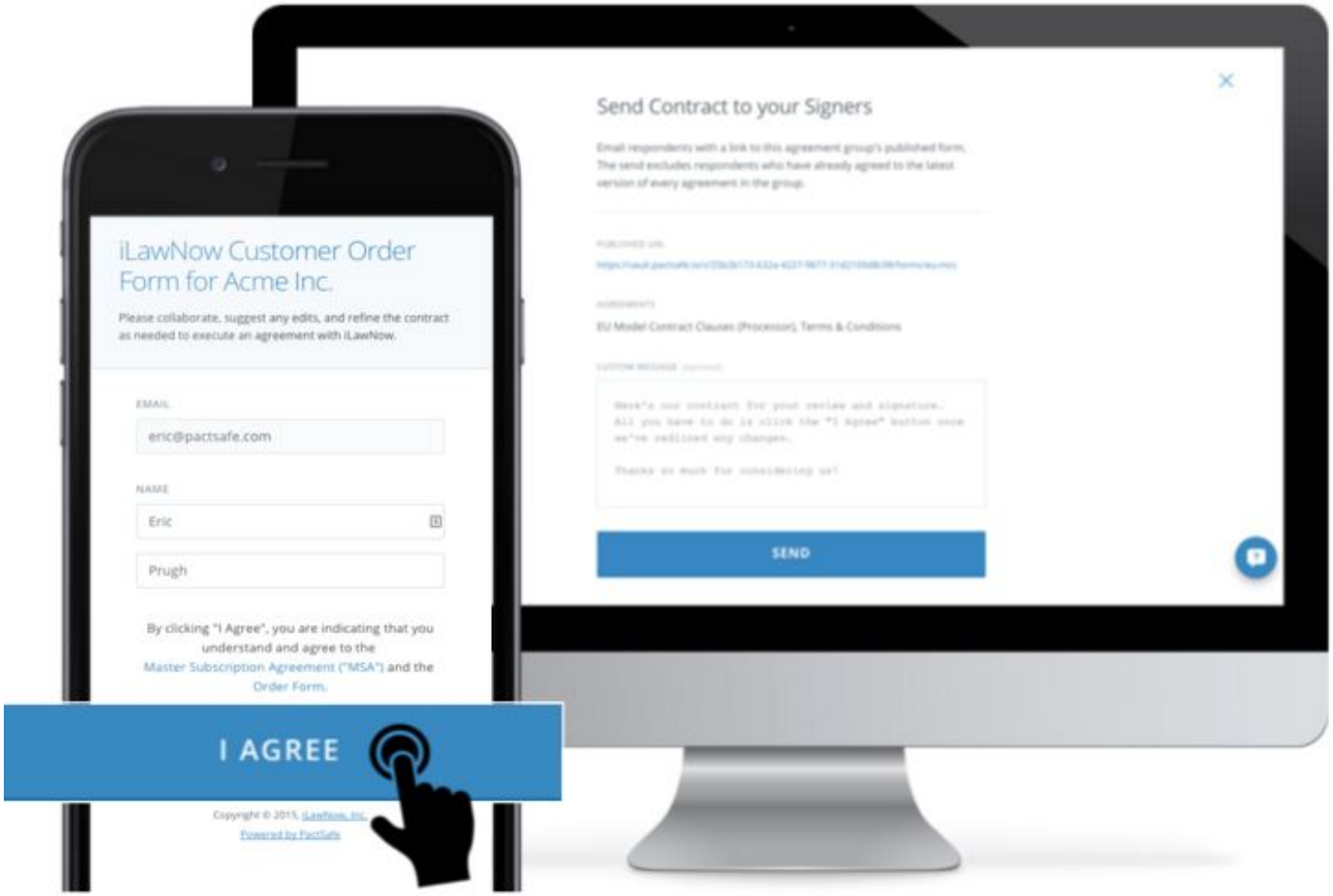
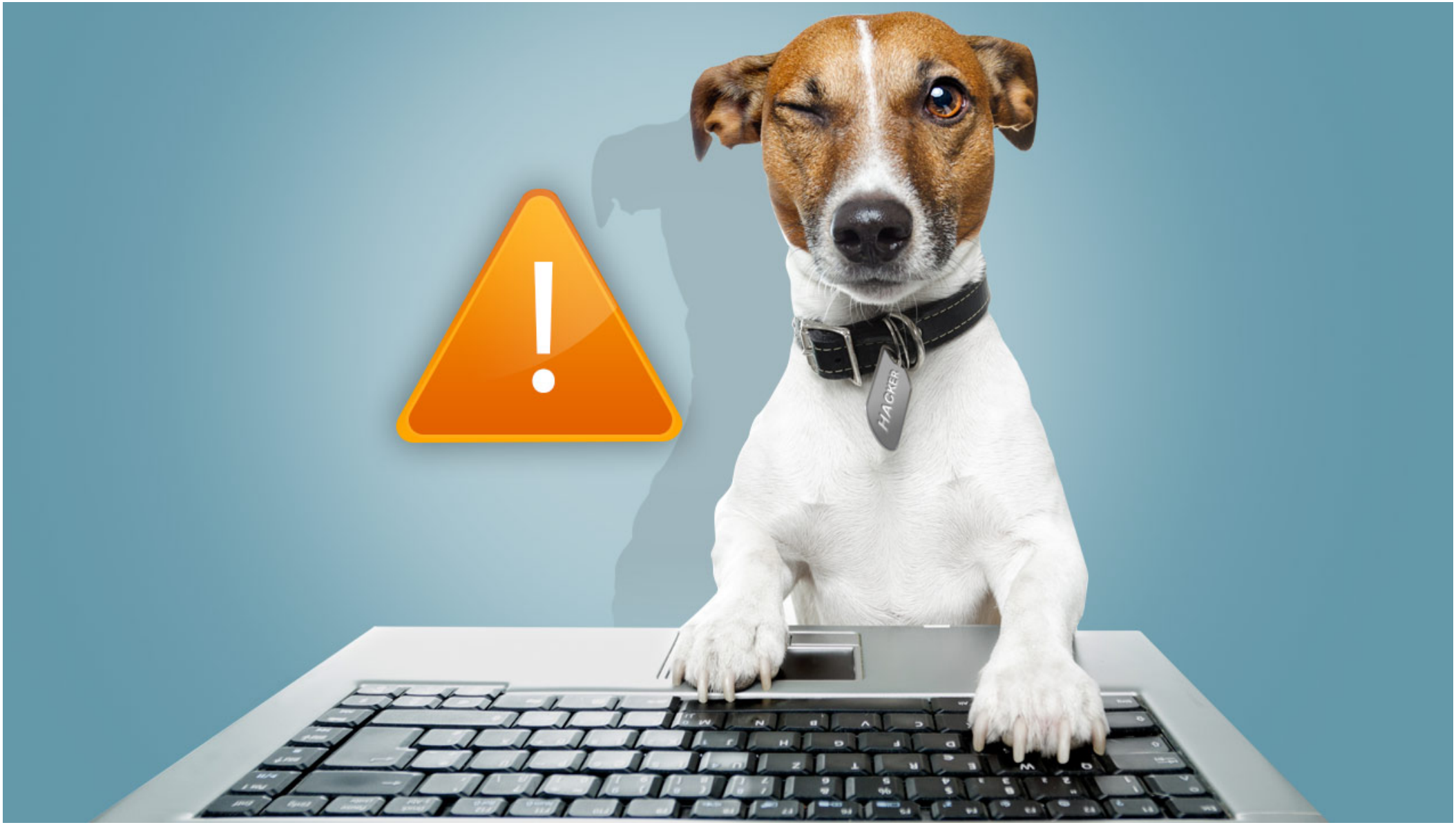
# Legal

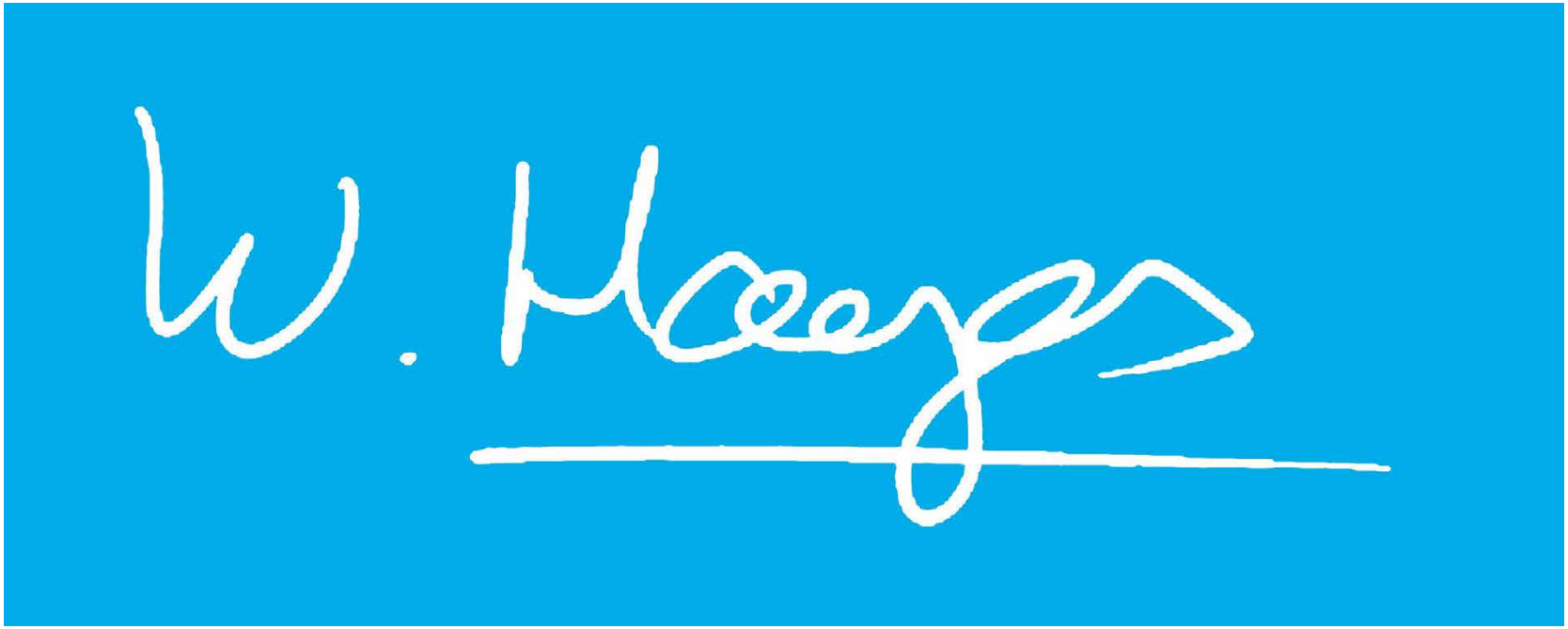

Send Contract to your Signers
SEND
iLawNow Customer Order Form for Acme Inc.
Please collaborate, suggest any edits, and refine the contract as needed to execute an agreement with iLawNow.
EMAIL
eric@pactsafe.com
NAME
Eric
Prugh
By clicking "I Agree", you are indicating that you understand and agree to the Master Subscription Agreement ("MSA") and the Order Form.
I AGREE

# Woof..... Woof.....



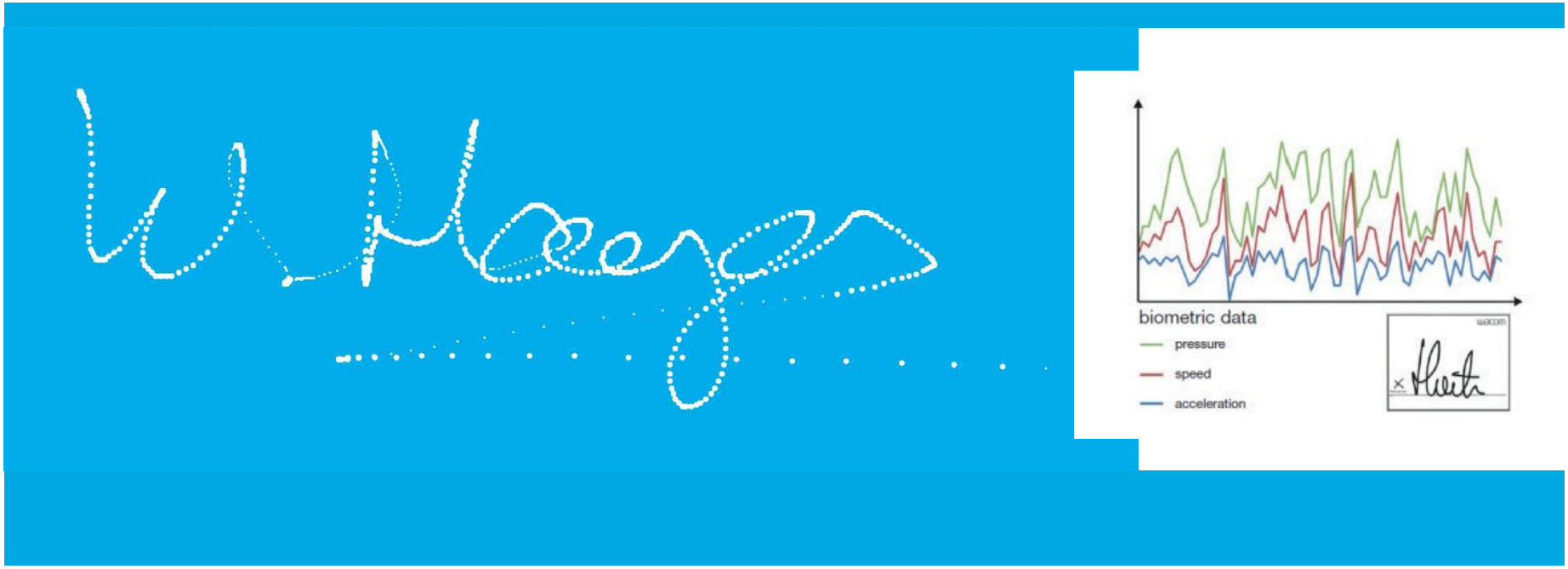
# Forensic Signature Analysis

What the signee sees:



# Forensic Signature Analysis

What the Wacom devices see:



# Forensic Signature Analysis

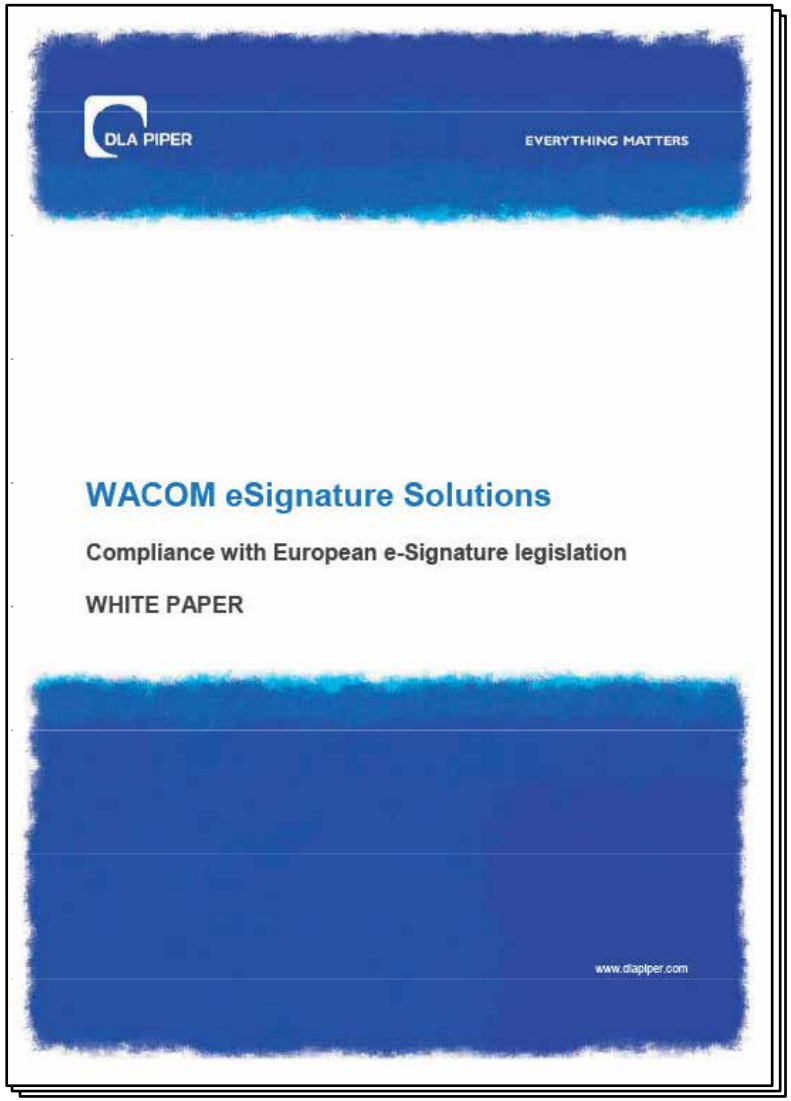
- Signature tablet collects 'pen events' at regular intervals
  - Position of the pen on the pad
  - Pen pressure
  - Pen angles (depending on pad and pen types)
  - Azimuth, altitude, rotation

- Best forensic value is achieved by collecting raw data
  - Stored within signature data together with pad metrics
  - Occupies typically 3-4kBytes
  - Eliminates risk of degradation
  - Allows exact reconstruction of original signature

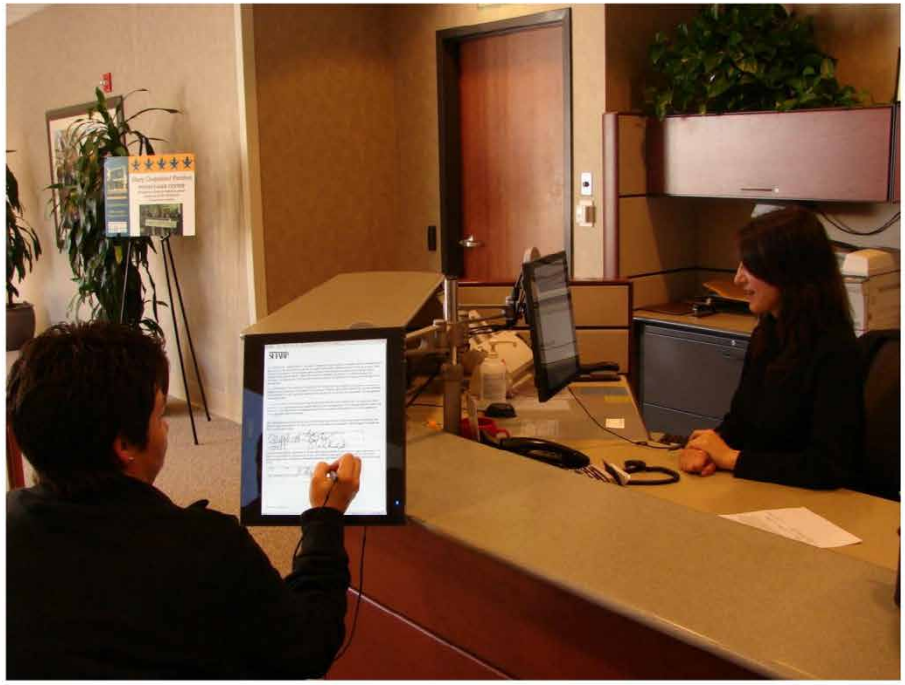
# Signature Requirements

1. Legally valid
   - Regulation 910/2014 effective as of mid 2014
2. Secure
   - Signatures are shown as being invalid if the document is changed
   - Combined with a digital certificate
3. Evidence of identity
   - The forensic information stored with each signature must be better than inked signatures on paper.
4. More than an image
   - Complete recording of the pen movement
   - Allows the sequence, speed and acceleration to be measured
   - Pen force (pressure) is included
   - Gives more information than is available from ink on paper
5. Encrypted data transfer
6. Certification

# Legally Binding?




# Sharp's Patient Care



## Pen Input Powers Sharp's Patient Care Initiatives

"The Wacom pen display is a critical tool in helping to reduce processing time, paper usage and costs, as well as greatly improving patient recordkeeping and accessibility," - Cathy Fuhrman, Manager of Sharp HealthCare's Document Imaging Group

**The User**

Sharp HealthCare in San Diego is one of the fastest growing healthcare systems in the country. There are four acute care hospitals under the Sharp umbrella, as well as three specialty hospitals, three affiliated medical groups and a health plan.

**The Challenge**

With their growing network, Sharp administrators needed help to modernize administration tasks and streamline patient check-in and recordkeeping, ensuring that Sharp's high standards for patient care are continually met.



"The cost and time saving benefits realized by pen input are significant and we are proud to be on the leading-edge of technology," said Fuhrman.

**The Benefits**

"The Wacom pen display is a critical tool in helping to reduce processing time, paper usage and costs, as well as greatly improving patient recordkeeping and accessibility," said Cathy Fuhrman, Manager of Sharp HealthCare's Document Imaging Group. "In addition, staff and patients enjoy the ease-of-use, freedom and control the pen delivers to the overall experience."

Sharp joins together Wacom displays with Hyland's OnBase ECM software and other equipment such as networked computers, scanners and card readers to build a complete hospital-patient interface solution that is fast, flexible and compliant with regulatory standards. "The cost and time saving benefits realized by pen input are significant and we are proud to be on the leading-edge of technology," said Fuhrman. "This technology initiative is a testament to our organization's dedication to patient care and the creation of a modern and forward-looking work environment."

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# Berlin Authorities



# Paperless

Berlin authorities make use of Wacom signature tablets in order to achieve paperless administration.

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## Berlin authorities make use of Wacom signature tablets in order to achieve paperless administration.

Berlin to New York. This isn't a new flight route we are talking about. In fact, it is the distance that would be covered by placing end to end all the sheets of paper that will be saved over the course of the next 10 years by the Berlin State Authority for Citizens and Regulatory Affairs (Landesamt für Bürger- und Ordnungsangelegenheiten) due to its use of Wacom's STU-500 LCD signature tablet.

Manuela Sandhop, project manager at the authority for the introduction of the new German identity card, explains the background to the paperless initiative: "The introduction of the new identity card has led to a significant increase in the amount of paperwork we have to handle. Each application involves three or four sheets of paper, and these must then be stored for 10 years. In the state of Berlin, between 350,000 and 400,000 new identity cards are applied for each year. This would result in approximately 16 million pieces of paper being handled and stored in any given 10 year period."

As this wouldn't just result in increased consumption of paper, but also raised issues with regard to archiving, Manuela Sandhop started looking for a solution that would make the process as digital as possible. With paper archiving, all the paper would have required scanning in order to allow the documents to be stored digitally. Retaining the paper copies would also have required a great deal of space and caused increased costs – not purely for the physical premises but also in order to implement measures ensuring compliance with the strict legal regulations regarding retention. In contrast, the use of digital applications obviates the need for scanning, uses less space and ensures that documents can be found rapidly in the event of queries.

Signature tablets were already in use for some tasks in the Berlin authority, for example to allow citizens to confirm the receipt of documents. It then had to be ascertained whether or not these tablets could also be used for the application process for the new German identity cards. This issue was resolved by the Federal Printing Office (Bundesdruckerei), which evaluated the STU-500 LCD signature tablet and issued certification allowing the tablet to be used for this process. The Wacom tablet is the first tablet to receive such certification.

Tests were first conducted at the state authority in order to check the integration of the STU-500 with the existing software and to ensure a smooth introduction of the tablet. Following successful completion of these tests, all the Citizen Offices in Berlin were equipped accordingly, and 650 STU-500 tablets are now in use.

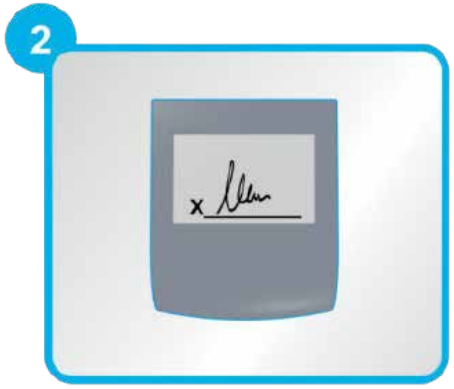
Thanks to the close cooperation between the project management team, the Federal Printing Office and Wacom, all the Citizen Offices in Berlin are able to use the STU-500. Inhabitants of Berlin that apply for a new personal identity card can provide their signature electronically, and all the documents are available digitally. When they are filled in, the applicant can follow the whole process on a monitor.They are filled in on a monitor that allows the applicant to follow the whole process. "Only the so called control form now needs to be signed in the traditional way," states Manuela Sandhop as she summarises the current state of the project. "We weren't able to programme that in the short space of time available before the launch, but will be implementing it as soon as possible."

The acceptance of the STU-500 LCD signature tablet among citizens is high. Only a few insist on receiving paper copies of their application documents. For Manuela Sandhop, it is also important that the tablets are robust enough to withstand constant daily use. The pen and tablet surface used really impressed the project leader and convinced her that the tablet was the right choice. The signature field on the STU-500 is also large enough to cope with long signatures. The tablet itself is flat and robust and works smoothly even when used intensively.

Following the implementation of the procedures for handling the new personal identity card, Manuela Sandhop is already thinking about possible further areas of use: "The tendency to implement paperless administration is on the rise. We should therefore think about other areas in which we could make use of Wacom's signature tablets in order to save paper. Who knows, the amount of paper saved might eventually stretch right around the world."

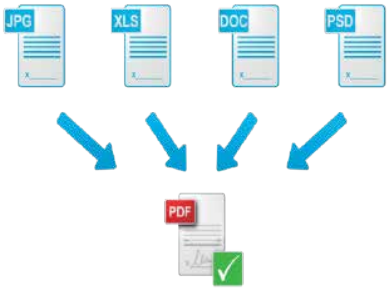
# Signature Software: Wacom sign pro PDF


Create a PDF




Sign the PDF


Protect the PDF with encrypted signatures





# Summary


RETURN ON INVESTMENT
PAPERLESS WORKFLOW
§
LEGALLY BINDING
500.000 SIGNATURES
SECURE DATATRANSFER
ROBUST SURFACE
3
3 YEAR WARRANTY