

ART OF DATA & COMMUNICATION SECURITY



## Your document is secure

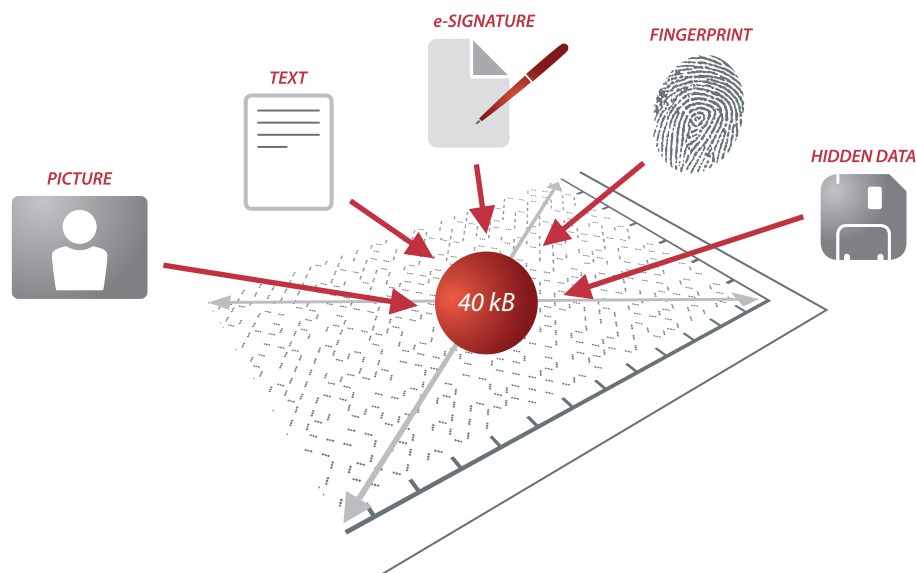
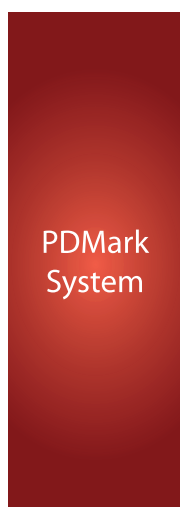
*Coexistence of paper and electronic documents creates room for new approaches and solutions.*

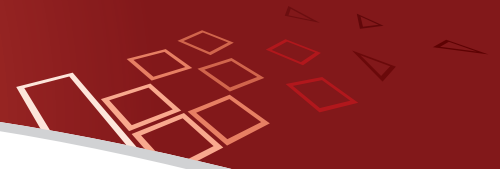
*The word "bureaucracy" stems from the word "bureau", used from the early 18th century in Western Europe not just to refer to a writing desk, but to an office, i.e., a workplace, where officials worked. The original French meaning of the word bureau was the baize used to cover desks. The term bureaucracy came into use shortly before the French Revolution of 1789 and from there rapidly spread to other countries. The Greek suffix -kratia or -kratos means "power" or "rule."*

*From Wikipedia, the free encyclopedia*

*Despite unquestionable penetration of new technologies into everyday life, traditions and several hundreds years old customs have caused that most things surrounding us come from our history and are rooted deeply in us. The world of administration, contracts, important documents and forms is also still a world of paper. We put our ideas on paper. During our creative activities paper suits us most. Only paper that we are holding in our hands and see is a source of certainty and guarantee. These values stem from a thousand years old experience and will obviously last far in the future.*

*Unquestionable advantages of electronic documents and the application of information and communication technologies itself bring inevitable need for mutual interconnection with the paper medium and create room for new approaches and solutions. Dependable transfer of information and its protection are essential tasks. As new technologies are introduced and information accessibility improves, demands for reliability, speed and price increase.*





## Paper documents will outlive us!

The coexistence of paper and electronic documents in the information and communication environment has brought the need for conversion technologies and at the same time has become an essential part of information security. Advanced technologies being widely accessible have made protection of the authenticity of documents yet more important than ever before. ARDACO has addressed this need with its innovative program carrying the name of a technology developed for this purpose - **PDMark®**.

### □ What is PDMark®?

**PDMark®** - Paper Data Mark is a patented technology developed by ARDACO for storing digital information on paper.

Storing digital information in a paper document provides substantially improved functionality:

- efficient transfer of information - 100 % reliability
- provides integrity of the documents' contents
- provides high authenticity of the document - integration of an electronic signature
- protects the document's contents in the case the document is damaged
- provides the means of storing confidential information

### □ What is the position of PDMark®?

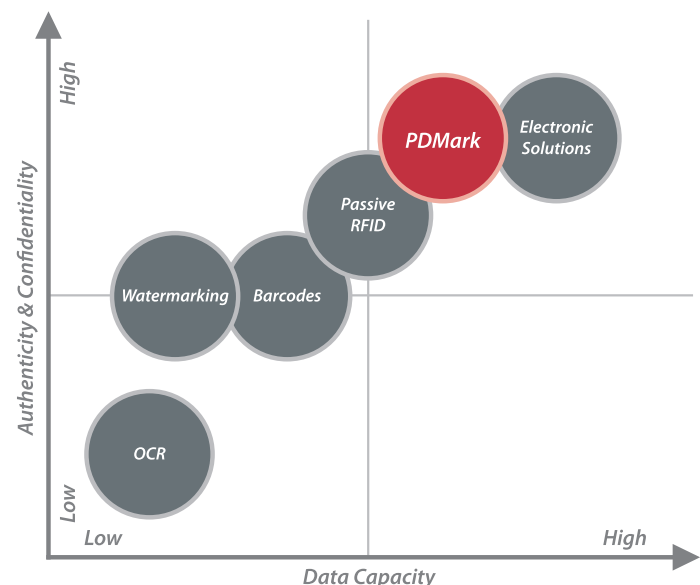
**PDMark®** incorporates the functionality of well known technologies and brings new and unique functionality:

- security
- the protection of information
- accuracy
- reliability

This robust functionality is made possible by the patented technology of ARDACO, unique in the world.

Implementing this functionality using traditional solutions and their integration may not guarantee expected results and often leads to risks of losing expended funds.

**PDMark® and its technological position**





*Your document is secure*

## □ Where can PDMark® be used?

*PDMark® technology can be used anywhere, where paper documents are to be electronically processed and where its main features as protection of documents' contents and improvement in their processing can be utilized. It is intended for customers in various areas in both public and private sectors:*

### *e-Government:*

*Health service, criminal records, commercial register, cadastre, customs administration, tax administration, mail service, courts of law, army, ministry of interior, police, immigration.*

### *Commercial sector:*

*Financial services, insurance, certification institutions, document management systems, logistics, notaries, identification systems, advertising agencies, e-Commerce.*

## □ PDMark® products

*PDMark® for Office 3.8*

*PDMark® for Office Professional 2.0*

*PDMark® for Acrobat Professional 1.0*

*writing and reading PDMark® documents*

*integration of electronic signature*

*integration in Adobe Acrobat*

## □ PDMark® solutions

### Conversion of data in paper and electronic documents

*The form has retained its strong position as a basic tool of administration in organizations, bureaus, and institutions. At the present time processing of paper forms is connected with manual or semiautomatic solutions. Using OCR technologies for processing of paper forms is connected with time demands and additional attendance, which increases the total cost of the system.*

*PDMark® technology originally developed by ARDACO for protection of a document's contents as well as the document itself employs a different approach. This innovative product protected by a patent is the basis for a hybrid form. The contents of a filled-in form are printed on a subtly visible background, which carries the digital information of the visible contents of the document. By scanning the form the digital information encoded in the background gets transferred back from the paper into the computer. This solution transfers digital information and provides 100 % reliability of fast processing using common printers and scanners.*

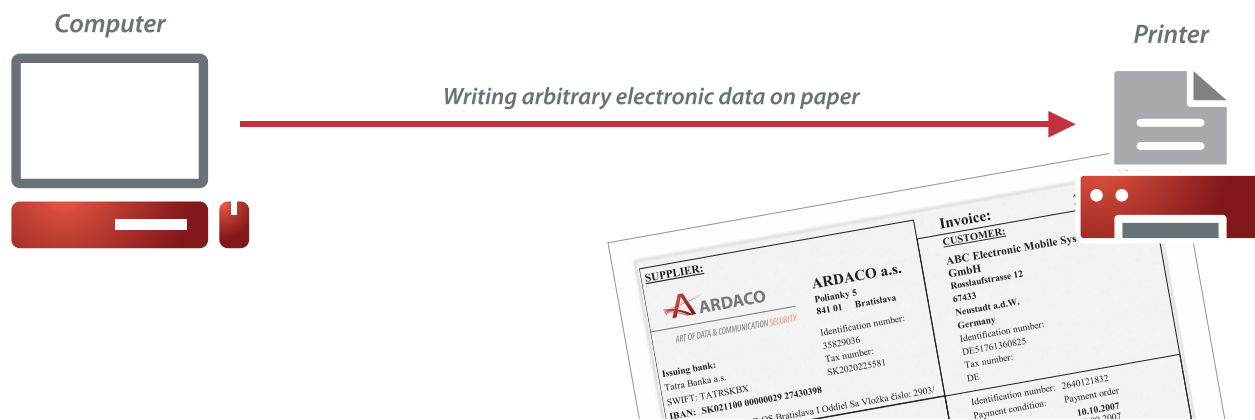
# Digital world on paper

## Paper that your computer understands

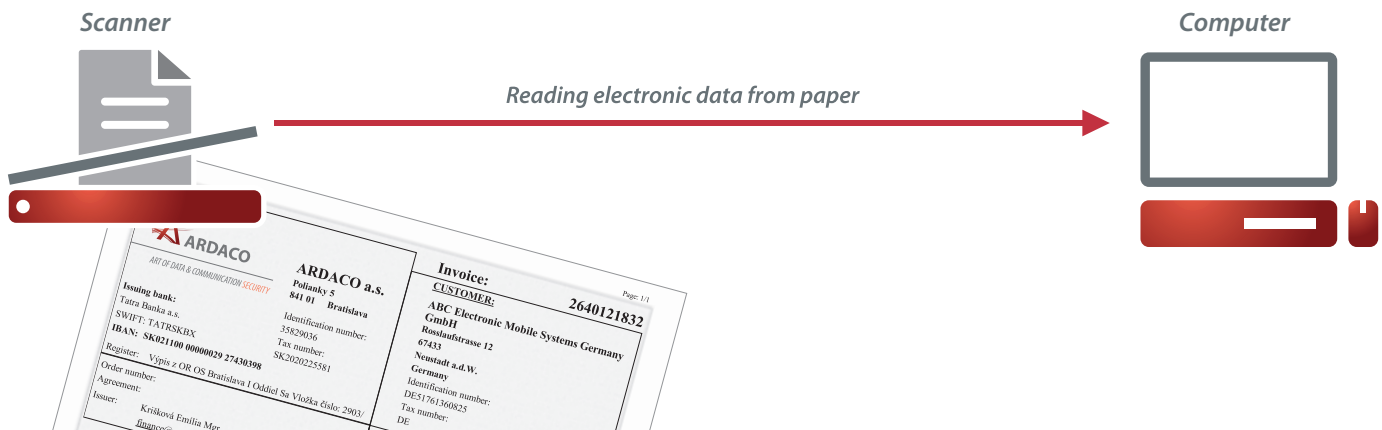
Most people still consider paper documents trustworthy. In their original form, contracts and other documents are still on paper and signed by hand. Letterheads and business letter envelopes are a common part of business administration.

Despite substantial increase in productivity and reduction of costs electronic documents have not won much trust so far. Their main disadvantage is the possibility to modify the contents or other attached information in a relatively easy way. This property gives way to various forms of tampering and frauds. Securing paper documents against tampering and their integration with electronic processes are the key areas **PDMark®** can address in elegant ways.

### Process of writing electronic data to paper



### Process of reading electronic data from paper



1. The contents of a filled-in form are printed on a coded background.
2. Scanning the form transfers the information in the digital coded background from the paper back into the computer.
3. This solution transfers digital information and provides 100% reliability.

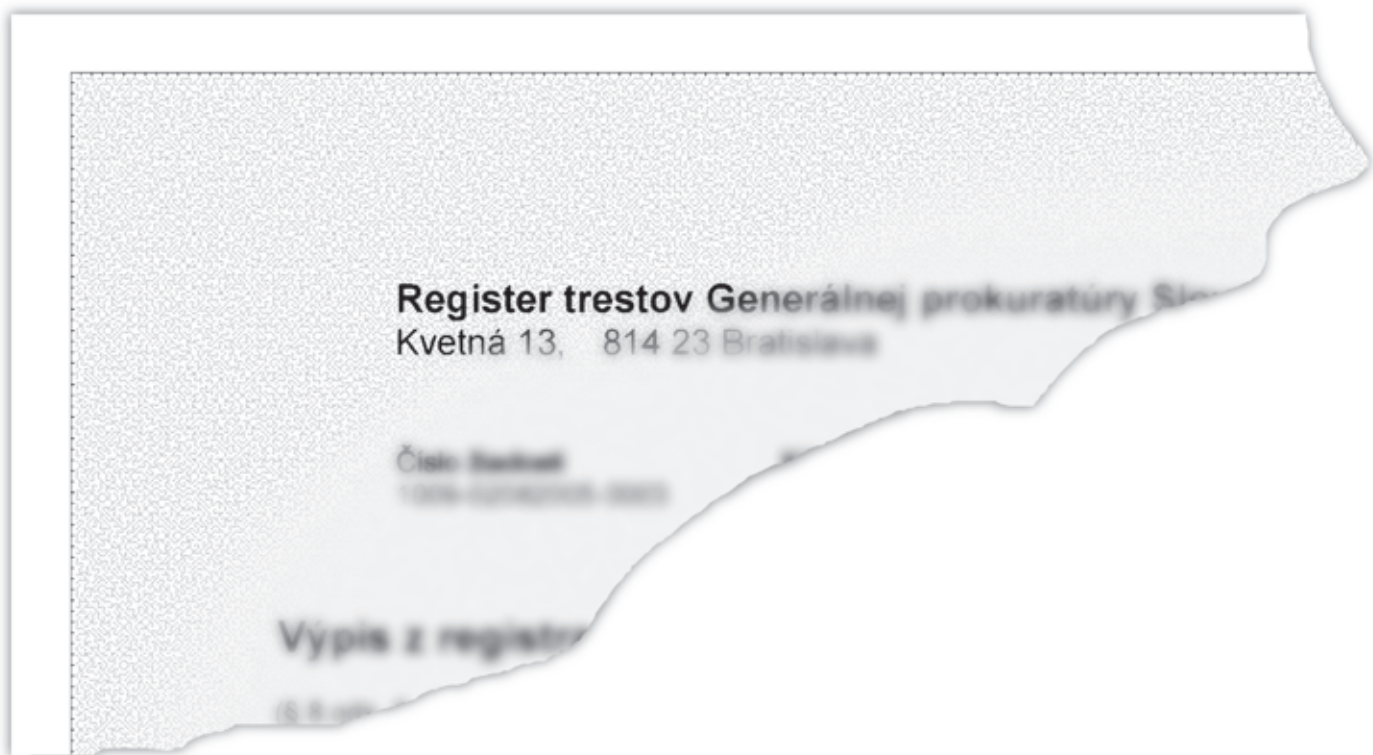


*Your document is secure*

## Protection of a paper document's contents against modification

- Verification with 100% certainty whether the original visible contents of a document has been modified.
- Automatic verification of the authenticity of a document's contents.

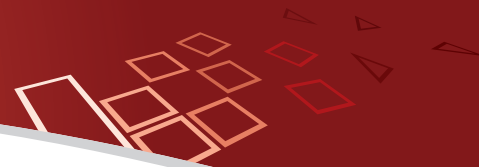
One of the main applications of **PDMark®** technology is protection of a documents' contents against modification, i.e. forging. We know many methods to protect a paper document against copying (protection of banknotes, holograms), but there are very few methods to protect the contents of documents in such a way that any change will be detected.



**PDMark®** is a unique technology, whose main contribution is the ability to detect subsequent modification of printed (visible data) against the original data with 100% certainty. Automatic verification of the authenticity of the document's contents allows one to verify whether the original contents have been modified in an automatic mode without any need for human intervention.

Digital world on paper

Paper that your computer understands



## Protection of a document's contents against damage

**PDMark®** technology preserves information even in the case of an extensive damage to the document, which can easily occur in the office environment, accidentally, intentionally, or during possible natural disasters.

Reliable reading of information  
from a damaged document



## □ System requirements of PDMark® technology

**PDMark®** technology does not put any increased demands on technical equipment. Common office equipment is sufficient for its application:

- laser or inkjet printer capable of printing at 600 dpi
- scanner with at least a 200 dpi resolution

When deployed in mass processing of documents we recommend using specialized high capacity scanners with at least a 200 dpi resolution and printers with at least 600 dpi.

## □ Benefits of innovations and partnerships

ARDACO brings its customers and partners innovative solutions and guarantees expertise in their deployment in real practice.

- local professional background – the author of several patents
- active participant in domestic and international projects, expert and interest groupings, and associations
- own technologies and solutions – a complete assortment of solutions: QSign™, Silentel™, PDMark™
- guarantees innovative solutions and stable partnerships
- room for specialized solutions
- provider of products and comprehensive solutions delivered according to specific needs of customers (consulting services, security project, installation, configuration, training)
- holder of various security certificates



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