

XCALLIBRE


Keep on Writing

Xcallibre gives you the power to keep on writing... Imagine sending handwritten documents and forms to your database from anywhere in the world within seconds.



Faster than a fax, cheaper than a stamp.

www.xcallibre.com



Every second of every day pieces of paper are processed around the world, the contents of which take several weeks to be processed, captured, collated and filed in your back-office system.

Xcallibre breaks the mould, making it easy for you to post simple handwritten documents or forms as electronic images directly to your database, while retaining hard-copy, all in less time than it will take you to read this page.

We give you the power to keep on writing...



Faster than a fax, cheaper than a stamp.



Digital Magic with Xcallibre

Xcallibre was launched in 2007 as a result of Data World (Pty) Ltd's (a 10 year old empowered South African company) extensive quest to develop and implement innovative, cutting-edge and cost-effective IT solutions for its clients.

Research shows that an estimated 30 billion documents are generated per annum in South Africa alone and that it takes, on average, three to four weeks to manually input data into computer systems.

Xcallibre brings together a unique combination of digital pen and paper technologies and highly advanced service infrastructure, to create a forms-processing solution with the ability to transfer handwritten notes and forms to your back-office, as graphical images and fully loadable data files, in less time than it took for you to read this paragraph.

“ Simply put, Xcallibre is the world's FASTEST, most ADVANCED forms-processing SOLUTION, using highly EVOLVED DIGITAL PEN AND PAPER technology. ”



The magic of our Xcalibre Solutions

OUTPUTS



MANUFACTURING

- Industry/MFG Documentation;
- QA Checks/Forms Online;
- Maintenance Technician Forms;
- Service Technician Forms;
- Inventory Forms; and
- Registering Equipment.



PUBLIC

- Government Documentation;
- Police Reporting;
- Community Forms;
- Billing;
- Service Delivery;
- Citizen Registration; and
- Statistics and Surveys.



HEALTH

- Patient Registration;
- Patient Medical Records;
- Sales and Order Processing;
- Patient Billing;
- Pharmaceutical Clinical Trials;
- Remote/Field Medical Data Collection;
- Ward Rounds and Patient Charts; and
- Script Processing.



CONSTRUCTION

- Time-Sheets;
- Quality Assurance;
- Order Processing;
- Equipment Orders; and
- Plans and Designs.

BENEFITS

MANUFACTURING

- Quicker Turn-Around Times;
- Faster Production;
- Smooth Order Processes;
- Staff Workload Reduced;
- Decreased Delivery Times;
- Increased Customer Satisfaction; and
- No Training Required.

PUBLIC

- No Dockets Lost;
- Justice Swiftly Served;
- Transparency in Operations; and
- Estimates Document Handling Time.

HEALTH

- Quick Diagnostics;
- Medical Approval;
- Prompt Delivery;
- Immediate Attention;
- Greater Supply Chain Efficiency; and
- Reduction in Error Rates.

CONSTRUCTION

- Faster Turn-Around Time for Processing Time-Sheets and Orders;
- Reduced Administration Costs;
- Quicker Data Capture and Retrieval for Reporting and Costs Analyses; and
- Stricter Security Controls on Equipments Movement.

IMAGINE THE

unleash your company's true potential



BANKING & FINANCE

- Insurance Claims;
- All Financial Application Forms eg. Home Loans, Personal Loans, Credit Cards, etc.;
- Bank Forms Automating;
- Signature Verification;
- Client Questionnaires; and
- Human Resource Forms.



TRANSPORT & LOGISTICS

- Administration for Delivery Logs;
- Invoicing;
- Tracking of Drivers Using GPS;
- Simple Technology for Truck Drivers on Long Distance Trips;
- Signature Verification;
- Pod; and
- Trip sheets.



COMMUNICATIONS & TELECOMMUNICATIONS

- Streamlining Different Department Processes;
- Monitoring Hardware Movements; and
- Service Level Agreement Alerts.



SERVICE & RETAIL

- Survey Questionnaires;
- Stock Taking;
- Bar code Reading Capabilities;
- Product Identification;
- Inventory; and
- Minutes of Meetings.

BANKING & FINANCE

- Pre-Approved;
- Reduced Admin Costs;
- Quick Turn-Around Times;
- Increased Client Satisfaction;
- Instant Reports;
- User-Friendly Solution; and
- Quicker Transmissions of Information.

TRANSPORT & LOGISTICS

- Smoother Administration for Delivery Logs;
- Quicker Invoicing To Customers;
- Instant Client Signature Verification; and
- Immediate Electronic Feedback To Head Office Through Simple-To-Use Technology.

COMMUNICATIONS & TELECOMMUNICATIONS

- Faster Turn-Around for Accessing Digital Information;
- Efficient Monitoring and Control of Hardware and Equipment;
- Secure Web Gateway; and
- Reduction of Archive and Space Requirements.

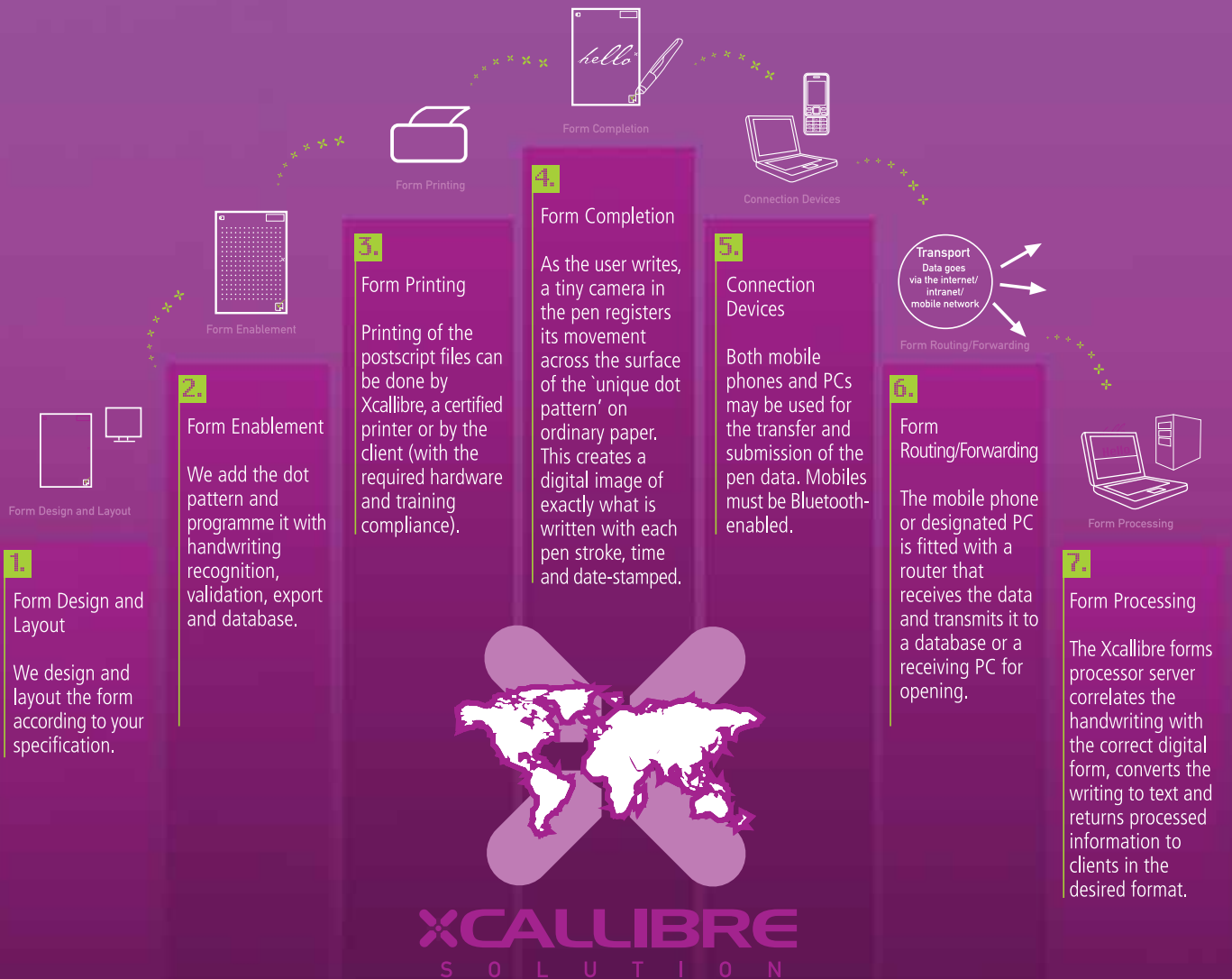
SERVICE & RETAIL

- Information-Reliant Decisions can be made Sooner;
- Waiting Periods for Submission of Client Application Forms Between Head Offices and Satellite Offices are Reduced; and
- No Postage, Fax or Courier Costs Used to Transfer Forms Requiring Approval, Feedback or Data Captures.

POSSIBILITIES

The Solution at a Glance

How it Works?



Other Strategic Alliance Partners

Part of our solution is built on a microsoft.net application

Microsoft

Functionality

Handwriting recognition software

VisionObjects

Strategic hardware supplier

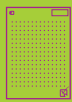
DESTINY

The Solution in Detail



1. Form Design and Layout

Good Form Design is imperative for a successful project. Our highly skilled development team will create a new form design and layout that will make your form easier for users to complete. Also, we can take your existing form and, by using our design tools, add the Anoto Dot Pattern to it. Anoto Dot Pattern: Almost invisible to the naked eye, the Anoto pattern consists of numerous intelligent small black dots that can be read by a digital pen. The pattern indicates the exact positions of the digital pen. What's more, the pattern on each paper has a unique identity so that pages may be kept separate from one another.



2. Form Enablement

No special paper is needed for the forms as the form is simply regular paper printed with the Anoto Dot Pattern in the background. The pattern appears as light grey shading on the printed form. The digital pen may be used on an infinite number of forms.



3. Form Printing

Forms are printed on standard office laser printers. The client receives a post-script file after their form has been enabled and can print on demand or in bulk by an Xcallibre-authorized printer.



4. Form Completion

The user fills out the form with the digital pen, which contains normal ink (available in seven different colours with refill ink cartridges). As the user writes, a tiny camera in the digital pen registers its movement across the surface of the paper printed with the dot pattern, enabled with Anoto functionality. This creates a digital image of exactly what is written with each pen stroke, time and date-stamped.



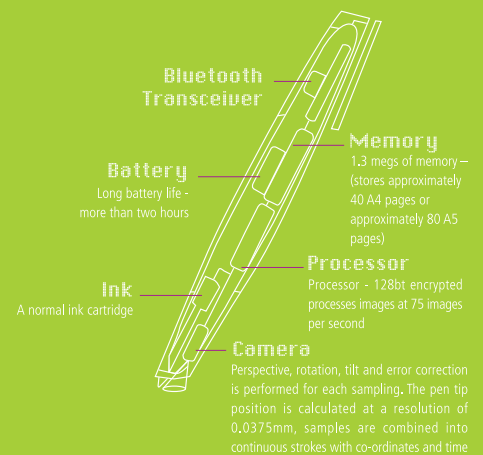
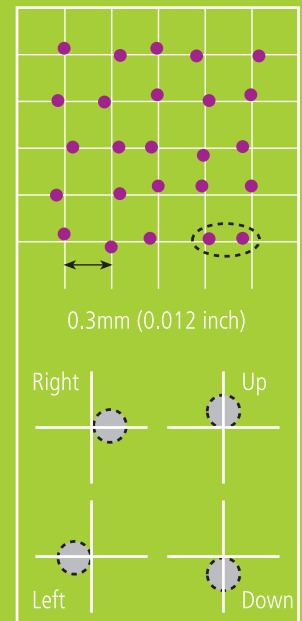
5. Connection Devices

The digital pen writes like a normal ink pen, and captures handwriting as it is written through the use of a built-in camera, and transmits the handwriting through a PC or cellular phone for processing. The pen is secure and more durable than a PC or tablet. It may be used indoors or outdoors as it is unaffected by bright daylight or low light environments.

Each digital pen has a unique ID. All digital pens used by Xcallibre are registered to our servers and can only communicate with that "trusted" server. All information captured from both USB and bluetooth pens is encrypted by the pen before uploading. Every pen contains a real time clock, making fraudulent form completion easily detectable. Our Xcallibre servers retain all pen stroke files, original images and XML upload files.

- Connection devices;
- Both mobile phone and PC can be used as a connection device;
- When mobile phone is being used as connection device, it requires a bluetooth pairing between the digital pen and the mobile phone; and
- When PC is being used as a connection device, to transfer the data, it requires docking of Pen to a USB cradle.

Example:



The Solution in Detail (Continued)



6. Form Routing/Forwarding Phone Router

When a mobile phone is being used as a connection device, we install software called "Mobile Router" on the mobile which acts as a routing agent and transfers the data from phone to an Application Server called Pen LookUp System (PLS) via a GPRS connection. Pen LookUp System then forwards the pen data to Form-Specific Application for processing of pen data. The router on the phone has the following functionalities:

- Transfers the data from phone to Xcallibre using GPRS;
- Allows the sending of images/photographs using integrated camera;
- Allows validation of form fields on your phone; and
- Allows the sending of the GPS locations.

PC Router

When a PC is being used as a connection device, we install software called, "PC Router." When the pen is docked to PC via USB Docking Cradle, Router downloads all the data from pen and transfers the data to Xcallibre called Pen LookUp System (PLS) via Internet. Pen LookUp System then forwards the pen data to Form-Specific Application for processing of pen data.



7. Form Processing - Xcallibre X-Station

- Place the digital pen in the USB cradle or connect via a mobile phone to download the pen's contents for processing. In the USB docking station, it takes about a second per form page to transmit. The encrypted XML vector file of the pen strokes is transmitted to Xcallibre's Digital Platform for processing into both an image of the completed form AND into the interpreted data from the form fields. After this hits our server, we run the Handwriting Recognition to convert what's being written on paper.

HANDWRITING RECOGNITION: Handwriting recognition software enables computer systems to convert characters, words and more generally text written by hand into digital characters or digital text. Xcallibre uses Vision Objects handwriting recognition software which is the world leader in this field. 25 language packs are currently available. Depending on the way the handwritten data is captured and represented, two domains of recognition exist:

- **OCR/ICR - Optical/Intelligent Character Recognition**
Processed data is either a colour, a black and white, or a grayscale image, obtained by an optical scanner or a camera.
- **HWR - Handwriting Recognition**
Processed data is the result of capturing the trajectory of strokes written by a pointing device, such as the digital

pen. The result is a set of points ordered by time, speed, acceleration, time order of strokes and writer ID.

HWR vs OCR/ICR

- Richer information captured (speed, acceleration, stroke order, writer ID); and
- Separate handwritten information from whatever is printed on the paper and this leads to:
 - Higher accuracy in the recognition results and faster validation process.

Accuracy is drastically improved by using lexicons

- User names;
- Place names; and
- Street names.

Automatic Data Verification

- ID numbers;
- Fieldworker names;
- Coded Forms reduce error;
- Validates Form fields, based on rules specific to each project;
- SMS notification to end users notifying them of any errors in capture of Form fields;
- Gathering of GPS Co-ordinates of the data collection point;
- Upload photos with form data; and
- Reading of bar codes.

Alerts - Validation, Integrity and Security

The digital pen communicates using end-to-end cryptography. A message written with the pen is encrypted within the pen before transmission. The message remains secret from the very moment it leaves the pen. It uses 128/256-bit symmetric key encryption on development of forms, validation and integrity rules are predefined and during the forms processing stage, these queries are run and automated responses are generated which are sent to the originator as well as managers and the like, in the form of sms, email or automated callbacks. With unlimited automatic validation rules built in to the back-office application, data collectors are notified real time of any discrepancies and have the ability to correct and resubmit the data. Each digital pen has a unique ID. All digital pens that are used by Xcallibre are registered to our servers and can only communicate with that "trusted" server. All information captured from both USB and bluetooth pens is encrypted by the pen before uploading. Every pen contains a real time clock making fraudulent form completion easily detectable. Our Xcallibre servers retain all pen stroke files, original images and XML upload files.

Benefits

Saves Time:

Handwritten input from field staff is transmitted to, and retrievable from, a central database much faster than conventional methods. The time saved by faster forms processing systems cannot be ignored by any organisation that prioritises customer service.

- ✘ Faster turn-around time for accessing digital information;
- ✘ Information-reliant decisions may be made sooner;
- ✘ Waiting periods for the submission of client application forms to head offices or satellite offices are reduced; and
- ✘ Forms may be sent to, and accessed by, multiple departments, branches or companies, within seconds of being captured.

Improves Efficiency:

In addition to the reduction in the time and cost of doing business, general improvement of staff and operational efficiency result from:

- ✘ Information storage of up to 40 A4 forms, or 80 A5 forms, which may be downloaded at a later stage;
- ✘ User-friendly, simple input search facilities requiring minimal training;
- ✘ Automatic back-up of handwritten documentation eliminating loss of information;
- ✘ Improvement in reporting and compliance;
- ✘ Immediate proof of delivery/acceptance;
- ✘ Simple filing and retrieval processes;
- ✘ Reduction of storage and archive space requirements;
- ✘ Built-in bluetooth support enable data to be sent to mobile handsets, wirelessly;
- ✘ More than two hours of battery life ensures maximum handwriting time without interruption; and
- ✘ Capturing of staff and/or client photographs, bar codes and GPS co-ordinates.

Saves Money:

Naturally, saving time on business processes also means that your company saves money. Direct and indirect savings are made due to:

- ✘ The elimination of infrastructure, operational and human resource costs related to the conventional "data capture" stage of forms processing;
- ✘ Improvement of business efficiency without having to make an enormous investment into the usually elaborate technological tools and staff training usually associated with system upgrades;
- ✘ No postage, fax or courier costs used to transfer forms requiring approval, feedback or data capture; and
- ✘ Ongoing cost-efficient operational costs.

Improves Security:

- ✘ Identification and tracking of information back to source signatories, improving accountability;
- ✘ Automated signature, integrity verification and instant messaging;
- ✘ 128bit encryption;
- ✘ Identification of user, time stamped log of pen usage and period of transaction process creates detailed "paper trail", improves user accountability and transparency;
- ✘ Secure web gateway; and
- ✘ Elimination of the opportunity for technology abuse and fraud.



versus



versus



PC Tablet

- The PC tablet is a multi-purpose device running standard PC applications. Thus computing power and local storage are not needed if only used for form automation
- Allows online access to improve form data capturing: online control, automated rules, real time application access
- The PC tablet offers Wifi and bluetooth wireless connections as an option

Hc calibre Solutions

- ✕ Speedier forms processing
- ✕ Automatic back-up
- ✕ Transparent transition and acceptance of a new technology
- ✕ Traceability
- ✕ Capture photos, GPS co-ordinates and bar codes
- ✕ Automated integrity checks and messaging reduce storage space and archiving
- ✕ No cables
- ✕ Long battery life
- ✕ High accuracy for handwriting recognition
- ✕ Reduced costs
- ✕ Faster response
- ✕ Simplicity
- ✕ Scanner Capabilities

Handheld/PDA

- The pocket PC can handle applications, such as agendas, navigation system and specific business applications
- Allows online access to improve form data capturing: online control, automated rules, real time application access
- Offers Wifi and bluetooth wireless connections

The Xcallibre Story

Today this name is reborn.....a pen mightier than the sword. In today's global market, gaining the edge is about processing your data in the quickest.....shortest..... possible time.

....the magic of sharing your ideas, thoughts or memories, almost instantly across boardrooms, over continents or, simply, to a friend is now available. Xcallibre, all you have to do is keep on writing.

So, unleash your true potential.....harness the power of Xcallibre Today.

www.xcallibre.com



Faster than a fax, cheaper than a stamp.

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