Overview

theCountyRecorder™ is a document recording and management system for County Recorders that provides:

- Digital Recording of Documents
- Integrated Imaging
- Cashiering
- Account Management
- Public Document Search
- Internet Public Search
- eRecording
- Personal Information Redaction
- Data & Image Archive
- Disaster Recovery
- System Maintenance & Support

theCountyRecorder$_{TM}$ Vision

Our vision is to provide a solution that is a "complete" document recording tool that encompasses all aspects of the recording from receipt of a document through support of the Recorder's customers.

Recording Experience

We began working with Recorder's offices in Colorado and Arizona in 1999. Our initial experience made us realize that a new system demanded to be developed which would solve the problems expressed by these offices. **the**CountyRecorder™ is a new system designed from the top down with Recorder's needs as the primary focus.
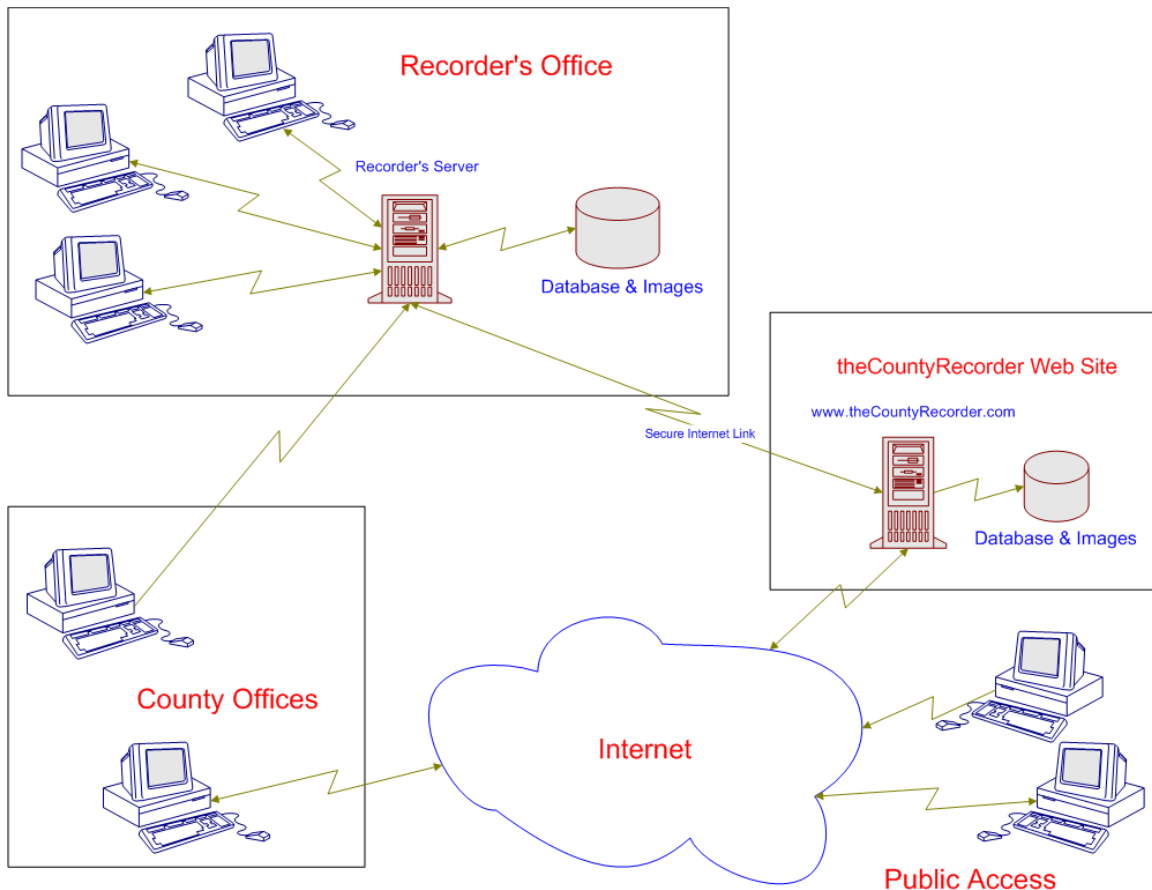
Architecture

System Description

theCountyRecorder™ consists of a collection of tools. The purpose of these tools is to allow Recorder's offices to digitally record documents, handle cashiering of fees, provide the Public with powerful document search capabilities and to assist the Recorder's office with maintenance of the recorded documents.

These tools are distributed among various computers including Recorder's workstations, the Recorder's server and our web site,

www.theCountyRecorder.com. These computers interact and are connected via the county network or through the internet.

The illustration below will give you an idea of how the system is laid out and shows interactions of the various components.

theCountyRecorder™ is designed in a client server architecture.

Server

The core of the system is a server located in the Recorder's office which hosts the following functions:

- Database
- Image Store
- Interface to **theCountyRecorder**™ Server
- Data Archive
- Backup

Client

A desktop software application, the client, is installed on the Recorder's workstations. This application provides a streamlined and efficient method of digitally recording documents using workflow processes.

The workflow guides Recorder staff members through the following steps:

- Document Intake
- Fee Payment
- Document Annotation
- Imaging
- ImageQC
- Indexing
- Document Perfection
- Return of Original Document

The desktop software allows Recorder's personnel to perform these tasks as well:

- Document Search
- Cashiering
- Accounts Management
- Report Generation
- Image CD Creation

Public Access

The Public uses this same desktop application to perform powerful searches of the document index and to view the document images. Public access to the system is read-only, Public users do not have privilege to change information.

Document Recording & Processing

Documents are recorded using a workflow process. Documents within the workflow can be accessed from the system queues.

Workflow Process

theCountyRecorder™ was architected with the understanding that each Recorder's office desires a different workflow. The workflow process is defined by each Recorder's office to meet their specific needs.

theCountyRecorder™ implements the following workflow steps:

- Intake
- Annotation
- Indexing
- Imaging
- ImageQC
- Return Address
- Perfection

Each workstation is capable of performing any step in the workflow at any time.

In-process documents are searchable and have a disclaimer indicating document processing has not been completed.

In-Process Queue

The In-Process queue shows all documents in work and provides detailed information about what workflow steps have been performed. The queue list can be filtered to show documents that are awaiting a specific workflow step.

Intake – Walk-in & Mail

Intake is the first workflow step where documents are recorded and payment is received from the customer.

Minimal information is required at intake to facilitate speedy recording of documents. Recording date, time, document type and page count is the only required information at intake. Document fees are automatically calculated from the document type and page count.

The system allows for multiple documents to be entered as a single transaction. As each document is accepted it is displayed in a list along with a running total of the current amount due.

When all documents within the package have been recorded the Staff member selects a payment button that opens a software Cash Register. The Cash Register transaction list is preloaded with all document items. Additional items can be manually added at this point.

Payment is made by entering any combination of cash, check, account debit and/or account credit. Change due is automatically calculated and displayed. Upon acceptance of the transaction the Staff member can optionally print a receipt.

Automatic assignment of reception numbers (document identifiers) is made by the system.

As with the flexibility designed into our workflow process, the document intake process allows for several different processing options. These options will be tuned to meet Recorder's exact requirements for document intake. Options include:

- Scan First – scan at intake time, all scanned pages are digitally annotated with recording information
- Label All – traditional mode
- Hybrid modes
- Satellite locations are supported for intake and document processing

Intake – eRecording

Document packages that are received electronically are processed through intake just as with paper documents arriving by walk-in or mail.

The intake window is slightly different. A list of all documents within a package is displayed. Each document is sequentially checked for correct document type and its image is verified to meet all Recorder's requirements. All documents within a package must be accepted or the entire package is returned to the submitter.

When the package is accepted, a payment transaction is automatically processed, reception numbers are generated and each image is automatically stamped with a digital annotation.

If a package is rejected the Staff member is required to enter a reason for rejection, the package is then returned to the Submitter.

Recording Fees

theCountyRecorder™ supports seven recording fees. The first two fees are fixed by the system as the Recording fee and Real Property Transfer fee. The remaining five fees are defined by the Recorder's office. These user defined fees can be preset to a fixed money value.

Indexing

theCountyRecorder™ allows indexing of the following information:

- Reception Number
- Book-Page*
- Recording Date and Time
- Document Type
- Description
- Related Documents
- Grantors**
- Grantees**
- Lot, Block, Subdivision
- Section, Township, Range
- Parcel ID
- Street, City

* Book-Page: book type, book number and page number can be entered for historical records (older documents).

** Single sided document name entry is also supported (single Document Name column).

theCountyRecorder™ user interface is streamlined to facilitate efficient entry of data. All index entries are viewable on a single page resulting in a clean screen layout that is very easy to read. Document names, legal entries and related documents are organized into lists that allow a virtually unlimited number of items.

Index data is normalized so that all index data is in a standard, searchable form. Document names are normalized against PRIA recommendations for document name indexing. The system allows the Recorder to select document name normalization settings.

Information that the Recorder would like entered into the index that doesn't fit into one of the predefined fields can be entered into the Description field. The Description is a searchable field that searchers can query to locate documents.

Annotation

theCountyRecorder™ supports several methods of document annotation including:

- Slip sheet printing on original (print directly on original)
- Digital annotation of image
- Slip sheet print on first sheet of original, remaining pages are digitally annotated
- Avery labels
- Dymo labels
- Zebra printer labels

Imaging

The imaging system is very simple to use and brings robust imaging capability with the following functions:

- Duplex Scan in scanner
- Duplex Scan in software
- Page rescan – insert, replace or append
- Rotate page
- Delete page
- Print image
- Redaction
- Despeckle
- Deskew
- Digital notes
- Blank page removal
- Size image
- Border cleanup

Sensitive Documents

theCountyRecorder™ supports a feature called Sensitive Document. Each document can be selected at indexing time as being a sensitive document. Sensitive document images and return addresses are hidden from Public searches. When a Public searcher attempts to open a sensitive document they receive a message indicating the document is sensitive and that they should contact the Recorder's Office for more information. Documents such as DD-214's fall into this category.

Personal Information Redaction

Redaction of personal information is built into the imaging tool. Staff members can manually redact any portion of a document image. The Public will see and print black redaction marks. Staff members will see light blue redaction marks and will have the option to include (or not) the mark when they print documents. The manual redaction process is very simple and quick. To add a redaction mark right mouse click on a

document image and draw a rectangle. That's it! Redaction marks can be moved, resized and deleted.

Image Crawler

A software tool is included that automatically crawls through all historical images and incoming documents looking for personal information. It converts each image to text (OCR) and performs a rule based analysis of the text to locate personal data. The resulting list of identified personal data matches is compared against redaction marks applied to the images. The results are then presented in a window allowing Staff to quickly redact the personal information. The crawler looks for Social security numbers, business FEINs and credit card numbers.

ImageQC

ImageQC is a workflow step where the Recorder's staff member verifies the document image meets the Recorder's standards. All pages of the document are sequentially displayed at a preset time interval to quickly allow the Staff member to verify each page is acceptable. The Staff member can pause the sequencing at any time.

Return Address

Original document return information can be entered at the index entry step or as a separate step. A drop down list of common return names is available. When selected the return address information is automatically populated. The list of "return to" names and addresses is maintained by the Recorder's office.

Printing of standard Avery style labels, Dymo labels or directly on envelopes is supported .The system supports individual label/envelope printing or a group can be printed in a single batch process. A user selectable checkbox tells the system to print the label/envelope in batch mode.

A Return Date entry is entered when a label is printed.

Document Perfection

Document perfection is the name we have given to the final step in the workflow process. When a document is perfected it is an indication that all steps in the workflow are complete and correct. To perfect a document the Recorder's staff member selects a Perfect Now button in the document index window. The button will be disabled if there are any unfinished steps. Supervisors have the option of over-riding the workflow step complete flags and can perfect a document at any time.

Document Search

Search

theCountyRecorder™ includes a very powerful document search capability. Searchers can specify <u>any</u> combination of the following search criteria:

- Recording Date
- Document Type
- Document Name – first, middle, last Or business
- Description
- Lot, Block, Subdivision
- Section, Township, Range
- Parcel ID
- Street, City

Search results are displayed in a list sorted by Reception Number. Each item includes the document type and all document names associated with the document. Additionally when the user allows the mouse to hover over a result list item a summary of the entire index is displayed. This has proven to be an extremely effective search aide.

The search engine is intelligent enough to understand that first, middle and last names may be contained in a single field (from legacy index data) or in separate fields.

Email Documents

Document images can be emailed in PDF format from the search result page or using our Email Documents Tool.

Revenue Management

Cashiering

theCountyRecorder™ includes a software cash register that can be used to manage all transactions within the Recorder's office. This is the same cash register used in document intake.

The cash register allows Staff members to enter a running list of transaction items and then collect payment from the customer. Any combination of cash, check and account debit/credit can be entered as payment.

Cash register receipts can be printed at the time of transaction or reprinted at a later time.

The cash register allows Staff members to review transaction history by date range and to print transaction history reports.

Accounts

the**CountyRecorder**™ includes a complete account management system. Accounts can be setup as debit (draw down) or credit (charge) accounts. The system supports account invoicing as well.

Accounts can be added, edited or removed. Each account history can be viewed by date range and an account history report can be viewed or printed.

Invoices can be created for all outstanding cash register items up to a user specified cut-off (invoice) date. Invoices can be reprinted at any time.

Account Reconcilation
An account reconciliation tool is built into our system that allows you to match account payments against account purchase (charges). The reconciliation information is stored in the database and can be reviewed at any time.

Reports

Reports are available to support end of day, end of month and end of year processing. **the****CountyRecorder**™ includes the following revenue related reports:

- Cash Register History
- Check Summary
- Fee Summary
- Revenue Summary

- Transaction Summary
- Account History
- Account Invoice
- Account Summary

All reports in **the****CountyRecorder**™ can be viewed on screen, printed, exported to PDF or emailed.

Internet Services

Saul's Creek Engineering provides Public Search web site hosting and electronic recording services as part of **the****CountyRecorder**™ .

Both services provide the utmost security to each County. All internet traffic is generated from the Recorders Server located in the County. No outside generated internet traffic is required for these services.

Public Search

We host internet based Public Search for our customers. Each County's index and image data is replicated to our web server on a regular time interval via a "push" technology originating from the Recorders Server located in each County.

The search web site is as similar in appearance to the desktop Public Search as possible and includes the same powerful search engine.

eRecording

Electronic recording is provided as an integrated component of our system. Our web server is the receiving point for all electronically submitted documents. The Recorders Server in each county "pulls" down document packages on preset time intervals.

We have taken two approaches to providing electronic recording services for our customers, one is an integrated solution and the other is PRIA compatible.

Our integerated solution consists of a software application called **tcrSubmitter** which we provide to private sector customers. This application allows submitters to perform document searches and package documents for submittal to a county.

We provide a PRIA compliant interface for access by other vendors and submitters. We are currently supporting with the following vendors through our PRIA compliant interface: SimpliFile, Ingeo and Kuvera.

Data Sales

Your data can be sold on the internet to interested parties. We have several subscription plans available to meet the needs of your business customers.

Security

A software interface called HostServices resides on the Recorders server and provides secure access to our web server. All internet traffic is generated by the Recorders server to provide the highest level of security possible to the County. At a predefined time interval index and image changes are "pushed" to our web server. New electronic packages are then "pulled" from our web server to the Recorders server.

All "less-secure" internet access occurs at our web server, the Recorders server remains fully protected and isolated within the County.

All data transmitted between the Recorders server and our web server is sent encrypted using SSL technologies.

Disaster Recovery

One of the goals in developing **theCountyRecorder**™ was to provide customers with the necessary tools to survive a disaster. Disaster recovery has been architected into our recording system through tiered layers of data archival.

A disaster could be a database server failure, a catastrophic event such as fire or any other unexpected occurrence that prevents your Office from recording and processing documents. Saul's Creek Engineering will

assist the Recorder in recovery of data and restoration of recording services if a catastrophic event occurs.

Automated Backup

We provide automated backup software called tcrBackup as part of the **theCountyRecorder**™. It is tuned to meet the backup needs of our system.

tcrBackup runs automatically every night after business hours. Index and image data is archived to an external hard drive. Upon successful completion, tcrBackup sends a message to our web service. Each morning our staff checks our web site to insure tcrBackup ran successfully in all our counties. Problems are fixed by our staff as needed.

County Backup
It is our belief that you cannot have too many data backups. If your data is included in a county wide backup scheme we encourage you to perform both processes in parallel; run tcrBackup and County backup every night.

Image Archival

Also included in our recording system is an image archiving tool called ImageArchive. It allows you to export your image data by recording date range or reception number range. The exported images can be written directly to optical media (CD or DVD) or to an external drive (USB or flash).

This tool is intended to be used by the Recorder's office and does not require support from IT departments. We recommend archiving your image data once or twice a year, then store the media in a secure off-site location.

Off-Site Archival

We provide a Public Search web site hosting service. With this service your index and image data is uploaded to our web servers throughout the working day to provide searchers with near real-time search capability. The added benefit of this service is that it also provides an off-site copy of all recording data. This is at <u>no additional cost</u> to you.

Support & Maintenance

Outstanding Customer Support

Saul's Creek Engineering provides exceptional support. We have worked very hard for many years to earn a great reputation for our customer support. We strongly urge that you check our references.

We provide a toll free number for staff members to use in the event they need assistance.

Software Updates

We provide periodic updates to **theCountyRecorder**™ as part of our maintenance plan. All updates are included at no additional cost.

We maintain all counties on the same version. This provides each Recorder's Office with the best possible tools and lowers our support costs. It is a situation where everyone wins.

Solution Highlights

theCountyRecorder™ contains many features that make it special, some of these highlights include:

- Workflow processing
- Variable intake workflow options
- Multiple document annotation methods
- Streamlined data entry
- Index normalization using PRIA recommendations
- Integrated document imaging
- Image redaction of personal information
- Automated document return

- Dual monitor support – document image in portrait display

- Multi-Station Intake
- Multi-Location support (satellite offices)

- Personal information redaction
- Image crawler to locate personal information

- Powerful search capabilities
- Public internet search
- Email documents

- Electronic recording
- PRIA compliant eRecording interface
- Digital annotation of images

- Integrated cashiering
- Accounts management
- End of period reconciliation

- Data archive & backup
- CD creation of index & images
- Disaster recovery plan

- Outstanding user support
- Ongoing system maintenance