

**Lee County Board Of County Commissioners  
Agenda Item Summary**

**Blue Sheet No. 20040783**

**1. REQUESTED MOTION:**

**ACTION REQUESTED:** Approve Bid Waiver # W-040504 to waive the formal quoting procedure and allow County Administration on behalf of ITG to purchase additional Kwiktag digital filing software from ImageTag, Inc., at the negotiated price of \$49,000. A bid waiver has been requested to ensure compatibility with existing Kwiktag software and to maintain the timeline for conversion to this software on a County-wide basis.

**WHY ACTION IS NECESSARY:** Purchases exceeding \$50,000 require Board approval. (This purchase will bring the total expenditure for Kwiktag software this fiscal year to approximately \$99,000.)

**WHAT ACTION ACCOMPLISHES:** Provides all County departments and divisions with an efficient way to retrieve stored documents. Savings to taxpayers via negotiation: \$121,892 (\$170,892 - \$49,000 = \$121,892).

**2. DEPARTMENTAL CATEGORY:** 6  
**COMMISSION DISTRICT #**

*A6A*

**3. MEETING DATE:**

*06-29-2004*

**4. AGENDA:**

- CONSENT ADMINISTRATIVE APPEALS
- PUBLIC WALK ON
- TIME REQUIRED:

**5. REQUIREMENT/PURPOSE:**  
(Specify)

- STATUTE ORDINANCE
- ADMIN. CODE AC-4-1
- OTHER

**6. REQUESTOR OF INFORMATION:**

- A. COMMISSIONER *Independent*
- B. DEPARTMENT *County Administration*
- C. DIVISION *County Manager/ITG*

BY: Jim Desjarlais

**BACKGROUND:** On June 10, 2004, the Division of Purchasing received a request from Administration on behalf of ITG to waive the formal quotation procedure and purchase additional Kwiktag software.

Funds are available: KCS132851500.503460

**Please see attachments:**

- (1) Justification for Waiver Purchase
- (2) ImageTag, Inc.'s Quote

**8. MANAGEMENT RECOMMENDATIONS:**

**9. RECOMMENDED APPROVAL:**

A Department Director	B Purchasing or Contracts	C Human Resources	D Other	E County Attorney	F Budget Services				G County Manager
<i>Desjarlais</i> 6/14/04	<i>Janet Hickox</i> 6/14/04			<i>Winters</i> <i>Trase</i>	<i>OA</i> 6/16/04	<i>OM</i> 6/17/04	<i>Risk</i> 6/17/04	<i>GC</i> 6/17/04	<i>HS</i> 6/17/04

**10. COMMISSION ACTION:**

- APPROVED
- DENIED
- DEFERRED
- OTHER

**Rec. by CoAtty**  
Date: *6/14/04*  
Time: *11:50*  
*2/A*  
Forwarded To:

RECEIVED BY  
COUNTY ADMIN:  
  
COUNTY ADMIN  
FORWARDED TO: *CA Office*  
*6-14-04*  
*11:45 AM*

RECEIVED BY  
COUNTY ADMIN: *TD*  
*6/14/04*  
*3:30 PM-5:27*  
COUNTY ADMIN  
FORWARDED TO:

*6-17-04*  
*3:00 PM*

JUSTIFICATION FOR SOLE SOURCE AND/OR WAIVER PURCHASE

REQUISITION NUMBER 451888

DATE 6-10-07

DEPARTMENT County Manager /ITC

BUSINESS UNIT \_\_\_\_\_

SUGGESTED VENDOR

ImageTag, Inc.

ITEM DESCRIPTION AND REASON FOR SOLE SOURCE AND/OR WAIVER:  
(MAY ALSO BE ATTACHED AS A MEMO)

KwikTag software is the County's digital filing software of choice. Purchase ensures compatibility with existing software and maintains the timeline for conversion to this software County-wide.

TECHNICAL CHARACTERISTICS:

See above.

REASON FOR REQUESTING SOLE SOURCE:

ITEM MUST MATCH EXISTING EQUIPMENT, WHICH IS:

KwikTag - the County's digital filing system of choice

ITEM IS A REPAIR PART FOR EXISTING EQUIPMENT, WHICH IS:

ITEM IS TO BE ATTACHED TO EXISTING ITEM, WHICH IS:

( ) TECHNICAL CHARACTERISTICS OF REQUESTED ITEM ARE ESSENTIAL TO OUR NEEDS  
BECAUSE:

\_\_\_\_\_

( ) NO OTHER MANUFACTURER OF THIS TYPE OF PRODUCT EXISTS

( ) OTHER MANUFACTURERS OF THIS TYPE OF PRODUCT DO NOT MEET OUR MINIMUM  
REQUIREMENTS:

MANUFACTURER'S NAME: \_\_\_\_\_

REASON: \_\_\_\_\_

MANUFACTURER'S NAME: \_\_\_\_\_

REASON: \_\_\_\_\_

MANUFACTURER'S NAME: \_\_\_\_\_

REASON: \_\_\_\_\_

( ) OTHER \_\_\_\_\_

MUST PERFORM PRICE OR COST ANALYSIS OR ATTACH NEGOTIATED PRICE QUOTE  
FROM VENDOR; LETTER FROM MANUFACTURER STATING SOLE SOURCE.

A) PRICE ANALYSIS PERFORMED

BASED ON:

*Please see attached negotiated price quote*

\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_

B) COST ANALYSIS PERFORMED:

BASED ON:

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*Robert D. Felwieschman*, IT MANAGER  
 SIGNATURE AND TITLE OF REQUESTER

I, *Robert D. Felwieschman*, AUTHORIZED BUYER,  
 CONCLUDE THE FOLLOWING:

SOLE SOURCE JUSTIFICATION IS ADEQUATE AND PURCHASE IS AUTHORIZED WITHOUT COMPETITIVE BIDDING.

SOLE SOURCE JUSTIFICATION IS INADEQUATE AND REQUISITION IS RETURNED TO DEPARTMENT.

DUE TO TIME RESTRAINTS PURCHASE IS AUTHORIZED WITHOUT COMPETITIVE BIDDING.

COMPETITIVE/NON-COMPETITIVE BID WAIVER APPROVED.

*Robert D. Felwieschman*  
 BUYER

*Janet Sheehan 6-14-04*  
 PURCHASING DIRECTOR

ImageTag's Proposal for KwikTag Digital Filing

## Executive Summary

ImageTag Inc. is planning release of its next version, KwikTag v3.5. This release includes a complete re-write of the client portion of our application in Microsoft's newest technology .NET. The client will have the following new or enhanced features:

- Windows XP look and feel
- Streamlined upgrades downloaded automatically from the server
- Native document support, i.e. Word, Excel, etc.
- Search Tool with date ranges
- Windows-based authentication
- Scheduling for Export, Purge
- Document retention rules

The strategy for our commitment to the release schedule includes:

- Prioritization of features
- Modular delivery of specification, design and development
- Moving undeliverable features to next release, i.e. service packs
- Upgrades available for existing customers 30 days after release date

One of the features added to the mix of market requirements driven by the need at Lee County Government is full-text search. Such a feature must:

- Provide text-based index for documents in a KwikTag Repository
  - MS Office
  - PDF Image+Text
- Enhance the KwikTag Client with full-text search capability
- Provide a web-based method that allows users to perform meta-data and full-text searches without having the KwikTag Client
- Enhance the KwikTag API to add a full-text search method to enable customers to connect KwikTag content to their private and/or public portals

Due to its late entry to the feature list and its relative priority, providing a date for delivery of full-text search to Lee County Government had heretofore been impossible. The purpose of this document is to propose a strategy for design, delivery and implementation of full-text search into Lee County Government in 2004 on a predictable schedule.

We look forward to your acceptance of this strategy and working together to provide you with this important capability. Thanks for the opportunity and continued belief in our product and company.

David Guilbault  
Dir, Product Marketing  
ImageTag Inc.  
480.477.3764 voice  
602.571.255 mobile

## The Challenge

Users at Lee County Government have access to a county-wide document repository for research and archival purposes. This repository is an internally-developed system storing scanned documents as meta-data and images in an Oracle database.

The system provides a text index that allows users to search for documents based upon content. To facilitate the building of this index, scanned images are converted to PDF Image+Text a high-value file type that incorporates optical character recognition (OCR) and the fidelity of scanning to produce a searchable document that still retains the look and layout of the original.

Unfortunately, this application has presented Lee County Government with a number of challenges:

- Capture Process is unproductive
  - Users employ a complex scan-before-index workflow
  - Users are unable to capture meta-data
  - Cumbersome folder/naming strategy acts as index information
- PDF Image+Text conversion process is error prone and requires
  - Constant monitoring
  - *Restarting*
- Search application is inefficient
  - Search screen itself takes more than 60 seconds to display
  - Single word searches require 90 to 120 seconds to produce a result
  - Larger searches (more than a single search word) often take more than 4 minutes to return control to the user
  - Users cannot search using meta-data, only content
- The Oracle Database is large
  - More than 335 GB on raw drive space (non-OS partition)
  - Difficult to backup or optimize

Due to these challenges, Lee County Government has asked their Information Technology partner, Schlumberger's Sema to develop a strategy for eventual replacement.

## The Proposed Course of Action

Leveraging the success of a pilot digital filing project in Human Resources, Dalton Moraes of Schlumberge' Sema recognized that an immediate benefit could be reached by adopting KwikTag Digital Filing as a capture front-end to alleviate the unproductive capture process. Although this would require internal development to connect the two systems, this work was deemed practical and prompted an upgrade of the pilot to a larger (250-user) multi-department system.

This is step one of a larger project to completely replace the internal search application. The project must bring to the users a new application that:

- Leverages the KwikTag capture method
- Stores PDF Image+Text AND associated meta-data
- Converts scanned images to PDF Image+Text as an reliable, unattended "lights-out" operation
- Improves significantly the performance and reliability of the search application

The project entails converting the users to a combined application, i.e. a combination of a internally developed software and a commercial application. Specifically, the commercial application would provide the bulk of the functionality with the internally developed software focused solely on custom or special purpose features.

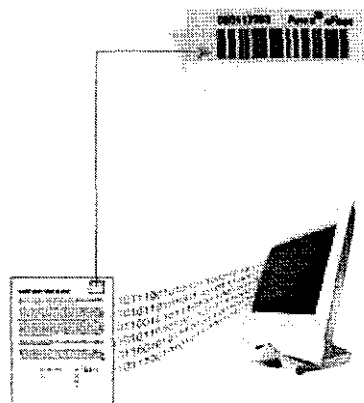
The County would gain important advantages to this approach:

- Elimination of support for a large monolithic software application
- Leverage of the work (design, development and testing) of a commercial software company
- Leverage the continuous improvement that a commercial software product undergoes as it competes in its marketplace
- Focused design and development of County-specific features, e.g. search portal for Lee County citizens

The commercial software application selected is KwikTag Digital Filing. KwikTag® is a breakthrough paper-to-digital platform, making it practical and efficient to manage paper documents digitally.

More importantly, KwikTag has already achieved success in a number of departments across County government. This success has demonstrated:

- KwikTag Digital Filing is a productive, universal system
- KwikTag is extensible and flexible enough to meet the needs of a wide variety of departments and users
- Reliability of the vendor ImageTag Inc. to meet County expectations



ImageTag Inc. would extend the capabilities of KwikTag Digital Filing beyond its current paper-to-digital focus to include a text database and full-text search. This new feature will be known as KwikTag Global Search (KGS).

## The Proposed Solution

KwikTag Global Search (KGS) is an enhancement of the current search feature within KwikTag Digital Filing. This new feature would:

- Provide a text-based index for documents in a KwikTag Repository
  - MS Office (when native documents are included in v3.5)
  - PDF Image+Text
- Enhance the KwikTag Client with full-text search capability
- Provide a web-based method that allows users to perform meta-data and full-text searches without having the KwikTag Client
- Enhance the KwikTag API to add a full-text search method to enable customers to connect KwikTag content to their private and/or public portals.

The project entails a new development activity that includes a review of the indexing and search engines commercially available. The project also includes functional and technical specifications, design, development, integration and test of the new feature within the existing v3.3 product as well as the upcoming v3.5.

### Search Engines

ImageTag has performed a preliminary review of the engines available for integration with an application like KwikTag that is based upon Microsoft technologies. This review has highlighted three products:

- dtSearch
- Surfinty
- Microsoft Indexing Service and SQL 2000 Full-Text Search

The leading candidate at this time is the product from dtSearch because of its track record and flexibility. Surfinty is a candidate because its simplicity of integration while Microsoft is listed because of its familiarity to ImageTag's engineering team.

### Functionality

Integrated with KwikTag Digital Filing, users would be presented with a search screen similar to the one below:

The screenshot shows a web-based search interface titled "KwikTag Search". It features several sections for defining search criteria:

- What:** Radio buttons for "Drawer Field", "System Field", and "Content (full-text)".
- With:** A text input field containing "Invoice Number" and a "Search" button.
- When:** Radio buttons for "Don't remember", "Past month", and "Within the past year". A "Specify dates" section includes a "Modified Date" label, a date range from "12/21/2003" to "12/21/2003", and a calendar icon.
- Where:** Radio buttons for "All Drawers" and "Within this drawer".

Note the addition of Content searches and the ability to specify a timeframe of the resulting document set. Users of the KwikTag web application would have a similar capability although at this time, it is unclear whether the date parameters are achievable for the v3.3 Web Client.

Additionally, KwikTag's Application Programming Interface (API) would include a new search method that enables Lee County to embed KGS into their internal and external portals for use by the Lee County Government and Citizens.



## ImageTag's Proposal for KwikTag Digital Filing

### **Performance**

KGS will improve dramatically the current user experience. The Search screen itself will appear in less than five (5) seconds; single term (word) searches will return the first page of results in less than fifteen (15) seconds and multi-term (multiple words with search and/or date parameters) searches in less than forty-five (45) seconds.

ImageTag believes that performance figures are achievable design targets for v3.3, and that v3.5 should further improve search performance levels. ImageTag will keep Lee County Government apprised of performance levels during the project to insure that KGS will meet expectations.

### **Delivery**

Because of the ambitious nature of the core requirements for v3.5 and the current prioritization of KwikTag Global Search, ImageTag requires acquisition of contract resources and/or re-ordering of priorities to provide the development activity outlined above. This activity is forecasted at:

- 1 – 2 weeks of consulting to complete the specification
- 4 – 6 weeks of design and development
- 2 – 3 weeks of integration and test

### **Implementation**

The estimate above ranges from seven (7) to eleven (11) weeks. Based upon acceptance of this proposal, Lee County Government could implement KGS for v3.3 KwikTag users in the Late June or early July timeframe.

## Investment / ROI

### Investment

To fund this activity, ImageTag proposes that Lee County Government accepts the Enterprise Upgrade now which includes:

- All Lee County Government employees (up to 2500 users) can install and use KwikTag Digital Filing now
- Import and Export modules installable and usable now
- All citizens of Lee County Government are authorized to access the KwikTag Repository through KwikTag APIs supplied by KwikTag Global Search when available

Lee County Government would pay 50% of the Upgrade upon delivery with terms of Net 30 Days. Remaining 50% paid upon delivery of KGS in June or July.

ImageTag Inc. is open to other acquisition strategies that better meet the needs of Lee County Government. It is critical to proceed at the earliest opportunity because of the need to re-direct engineering resources.

Further, ImageTag Inc. will offer Lee County Government a reduction of the ongoing cost for the KwikTag Maintenance and Support Agreement according to the following schedule:

- 1% reduction for the first ten (10) customers who acquire KwikTag Global Search
- 3% reduction for the first ten (10) Municipal or County agencies that acquire a KwikTag Digital Filing system because of a referral from Lee County Government
- Agencies may be in Lee County (outside of County Government) or other Florida governments.

### ROI

KwikTag's patented tagging method compresses and simplifies the many tasks necessary for full paper-to-digital lifecycle management.

- All users of Lee County Government can take advantage of this simplicity
- Users who are currently responsible for scanning are at least 75% more productive
- User who search for documents are 20% more productive or more
- The next release of KwikTag will enable management of common Office documents in their native format; bringing for the first time easy-to-use *document management to your entire organization*
- Digital Filing occurs in-line with existing process, so companies don't need to hire new workers, change their operations, or build a scanning department.

A proforma ROI has shown a payback period of one (1) month. ImageTag would be happy to take you through a formal ROI exercise to assist in your decision.

# KwikTag Digital Filing Solutions Price Quote



Prepared For: **Lee County Government**

presented by **ImageTag Inc.**

KwikTag Software Licenses		Qty	
	Enterprise Digital Filing - Expansion Number of users added Number of capture device licenses added KwikTag Software License Agreement	inc	Billing to occur upon receipt of purchase order. 50% due for delivery of Import and SDK; remaining 50% due upon delivery of KGS.
101-826	KwikTag SDK	1	9500
101-820	Import/Export Bundle	1	15000
101-827	KwikTag Global Search (KGS)	1	24500
ImageTag Service and Support			
<b>Total Upgrade Costs</b>			<b>\$ 49,000</b>
Related Expenses		Unit	Extended
<b>Total</b>			<b>\$ 49,000</b>

## Document Imaging

### Glossary:

**Crawler** -- application that “crawls” a defined network folder path looking for new documents to be converted from PDF to PDF+Text.

**PDF to PDF+Text** - Process of creating an additional set of information necessary to perform text searches in a PDF (imaging) file.

**OCR** – Optical Character Recognition - Process of processing an image and extracting all the text contained in that image.

**Windows RAW partitions** – technology used by Oracle where the database management system gains access to not-formatted disk drives. This technology allows Oracle to have access directly to the disk, without passing through the operational system, thus increasing the speed of data access.

**SDK** – Software Development Kit – Set of applications and documentation that allows the development of system interfaces. It would allow software developers to create API (application program interfaces) between legacy and new applications and the application the SDK was written for. This technology is used to avoid the necessity to use the application vendor every time an interface to their system is needed.

### Current Scenario:

When a department needs a file scanned and inserted into a database for future reference, a crawler application is launched to: Find the file within the folder structure, capture the text contained in that image (through OCR) and load the image and text to a database. This enables the departments to search for documents and view them via Lee County’s Intranet.

16 departments currently use Document Imaging. There are 16 crawler applications, one per department, to perform this task.

Note: The crawler program uses the Acrobat Capture module (an external application owned by Adobe Acrobat and licensed by the County) to process .pdf documents.

### Crawler Hardware System Information:

The current Operating System (OS) version used in the server that runs the crawler applications, is Windows NT 4.0 with Service Pack 6. The application has not yet been tested in a 2003 server. Some issues are being forecasted since the application relies heavily on the file system structure.

In order to upgrade the OS to a more recent version, the Adobe Capture software must also be upgraded.

### **Crawler Hardware System Issues:**

With the current hardware, only one crawler process can run at a time. This requires a manual verification of new files on every folder of every department. Then the crawler application is restarted (we have 16 crawlers).

There is a memory leak problem on Windows NT 4.0. This issue is known by Microsoft and their recommendation is to upgrade to a newer OS version.

Due to the OS version, the network connection is lost multiple times during the week and requires the server to be rebooted. Every time this connection is lost, invalid .PDF files are created. A manual search of these invalid .PDF files and a clean up must be performed.

### **Crawler Software Issues:**

Because the crawler code is not up to date with the current technology, CPU usage rises to greater than 65% when a crawler goes into sleep mode. If we multiply this factor by 16, we see that no machine will be able to perform properly after the 2<sup>nd</sup> crawler is started.

Periodically, Adobe Capture module is unable to write the document back to the destination folder (where the documents converted will reside), which causes the document imaging process to stop. To resolve this problem the server must be restarted.

Frequently the crawler process stops with the message "Synchronizing Index". It does not require the server to be restarted, but the crawler process must be shutdown and restarted. When this problem occurs the CPU usage hangs at 50%.

The current version of Acrobat Capture frequently hangs on a page conversion. To resolve this problem the server must be restarted.

If special characters are used in a file or folder name (e.g. ' – an apostrophe), the file will not load or the folder will not be created in the Oracle database.

The maximum size document Adobe is able to capture is 14" x 14".

Users are unable to update folder name and locations through the Intranet application

The software has not been updated in the past three years since it was designed and developed. In order to bring this solution to a current technology and current software design standards, it would take extensive time and effort from several resources.

### **Database Issues:**

Today the backup procedure of Document Imaging takes 26 hours to run. (currently the database size is 350 Gigabytes). The cost of disk space and server utilization is very high.

The system was designed to use the technology of "Windows RAW partitions". At the system conception time, this technology seemed to be the best one to increase the speed of the stored

data. Now, with the database handling the substantial amount of documents, the back up process is not manageable.

The current hardware has no capacity to add more disks, in order to create new "RAW partitions". So the system is running lower and lower on storage capacity. To add more space in the system the environment would need to be upgraded.

- The database runs on a machine with the OS version Windows NT and the version of this database is Oracle 8.1.5, (Oracle Corp. announced the end of Extended Support for Oracle Database Version 8.1.5 effective January 1, 2004).

**Administration:**

Requires an hourly search of all 16 departments finding any .PDF documents that have been recently scanned.

Must start each crawler process separately according to which documents have been found (after the hourly search).

Delete duplicate or invalid documents and folders.

Update folder name or location per user requests.

Check for invalid double period directories daily (a total of 1 hour a day is spent on this task).

**To resolve the existing problems with the current crawler:**

- The OS for the two machines would be upgraded to Windows 2000 or Windows 2003.
- The Oracle database version would be upgraded to Oracle 8.1.7.1.4.
- The Adobe Capture software would need to be upgraded from version 2.01 to version 3, which requires purchasing a new license.
- Would require software modifications to the crawler code in order to function with newer versions of:
  - Adobe Capture
  - Oracle Database
  - Windows OS
- Would require a rewrite of the crawler application to increase efficiency of the sleeping mode and also to allow multiple copies of the application to run simultaneously.

**Technical Recommendation:**

Currently Lee County uses a software package called KwikTag for image capturing. This software was purchased to address an HR need for Records Management. After 3 months of utilization, it brought a 75% increase in efficiency.

After that project was finished and the increase in efficiency was identified, other departments in the County requested access to the tool. In December, 2003, the County purchased an extension of the software licenses (from 10 to 250) as well as an export tool to be able to satisfy the County's needs.

At that point in time the necessity for a text search, a Software Development Kit, and an import feature were not yet identified. With all the issues presented above, the need for such solutions were identified.

ITG recommends purchasing three software features (Text Search, Software Development Kit and an import module) from ImageTag (KwikTag's vendor).

### **Expected Savings**

2 servers will be available after the migration project is completed. \$20,000

1 Oracle server license will not be in use, becoming available for other needs. \$9000

250 resource hours will be saved per year with decommission of the home grown system.  
New system will save about 400 hours saved, but new solution will require 150 hours of support. \$7500

1 new license of Adobe Capture will not be needed. \$500

#### **Backup resources savings**

Document Imaging database information takes 26 hours to be exported currently.

With the new solution, data will not need to be exported from the database, since it stores the images in the file system. Therefore, it is expected that the database backup would take about 6 hours.

This process will save 20 hours a week. The efficiency achieved per year would be 1040 hours. \$31,200

#### **Future maintenance and enhancements**

Working with a commercial product, Lee County will benefit from new releases, new functionalities and maintenance normally provided by vendors. It would take 3 to 4 months to introduce the necessary changes in the code, to bring the current home grown solution to an acceptable level of features and stability.

Today the application competes for resources with all other projects and maintenance services in the county.

Commercial grade applications also follow market standards, which allows for a change of vendors at any time the business needs change and the current solution does not address the new needs. Home grown applications would need to be re-designed and re-developed.

Efficiencies:

Current Technology:

Single word search takes an average of 2 minutes  
Multiple word search takes an average of 4 minutes

New Technology:

Single word search will take an average of 15 seconds  
Multiple word search will take an average of 45 seconds

**ROI is estimated conservatively at 5 months**