Fairfax Imaging, Inc.

Solutions from Fairfax Imaging, Inc.
for
West Virginia Tax Department

Remittance Processing

Request for Proposal Response
SOLICITATION NO. TAX1700000001

TECHNICAL PROPOSAL

Submitted by:
Fairfax Imaging, Inc.
2005 Pan Am Circle Drive, Suite 110
Tampa, FL 33607

Fairfax Imaging Contact:
Michael Minter, VP, Sales and Marketing
703-802-1220

April 19, 2017

ORIGINAL

Fairfax Imaging, Inc.
One Solution - One Workflow - One Provider

FAIRFAX IMAGING, INC.

April 19, 2017

Michelle Childers
Department of Administration, Purchasing Division
State of West Virginia
2019 Washington Street East
Charleston, WV 25305-0130

Reference: Request for Proposal (RFP) Solicitation No. 0702 TAX 1700000001

Dear Ms. Childers:

Fairfax Imaging is pleased to provide this response to the referenced RFP for Remittance Processing System. Fairfax Imaging takes no exceptions to any of the terms and conditions of the RFP, and confirms that its proposal is *fully compliant with all requirements of the RFP.* Fairfax Imaging acknowledges receipt of all questions and answers which modified or enhanced the RFP requirements.

Fairfax Imaging proposes our award-winning *Quick* Modules solution. Fairfax Imaging has considerable experience designing and installing remittance processing solutions, specifically in the state revenue space. To date, Fairfax Imaging has implemented its highly acclaimed *Quick* Modules solution in more state revenue departments than all other competitors combined. No other vendor boasts this record.

Fairfax Imaging offers the State of West Virginia a solution that is unique in the industry, providing a more efficient processing approach, with a streamlined single platform for all tax types. As the largest reseller of IBML scanners in the US, Fairfax Imaging proposes the ImageTrac 6400, along with our *Quick* Modules software. Best of all, we propose to the State of West Virginia an unlimited, site-wide, perpetual, and un-throttled license to all of our proposed software modules, thereby guaranteeing that our system will grow in lockstep with the State's growth needs, and always free of future licensing charge.

For this project, we have assembled a team of veteran project engineers, business analysts, trainer and testers which will guide the implementation of the proposed system to a mutually successful completion. Our team is very well-versed in the tax and revenue subject matter as well as the technology. I will see to it myself that our solution exceeds your expectations in delivery, accuracy, and performance. Should you require further information, please contact our Vice President of Sales and Marekting, Michael D. Minter at 703-802-1220 (x103), or via email at mminter@fairfaximaging.com.

Sincerely,

Stephen S. Chahal
President and CEO

Purchasing Divison
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Request for Proposal
28 — Office Equip.

Proc Folder: 290212

Doc Description: Remittance Processing System

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2017-02-17	2017-04-19 13:30:00	CRFP 0702 TAX1700000001	1

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Name, Address and Telephone Number:

Fairfax Imaging, Inc
2005 Pan Am Circle Drive, Suite 110
Tampa, FL 33607
Tel: (703) 802-1220

FOR INFORMATION CONTACT THE BUYER

Michelle L Childers
(304) 558-2063
michelle.l.childers@wv.gov

Signature X [signature] FEIN # 54-1701382 DATE 4/17/2017

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:
Request for Proposal

The West Virginia Department of Administration, Purchasing Division is soliciting proposals pursuant to West Virginia Code 5A-3-10b for the West Virginia Department of Revenue, Tax Division to provide an integrated, imaged-based remittance processing and data capture system.

INVOICE TO	SHIP TO
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON WV25339-1748 US	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON WV 25301-1725 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Computer data input devices	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
43211700			

Extended Description :

Integrated, imaged-based remittance processing and data capture system as described in the specifications including hardware and software.

INVOICE TO	SHIP TO
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON WV25339-1748 US	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON WV 25301-1725 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Installation and Training	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
86132100			

Extended Description :

Installation and training as described in the specifications.

INVOICE TO	SHIP TO
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON WV25339-1748 US	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON WV 25301-1725 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	1st Year Maintenance & Support	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
81112201			

Extended Description :
1st Year Maintenance & Support

INVOICE TO	SHIP TO
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON WV25339-1748 US	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON WV 25301-1725 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	2nd Year Maintenance & Support	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
81112201			

Extended Description :
2nd Year Maintenance & Support

INVOICE TO	SHIP TO
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON WV25339-1748 US	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON WV 25301-1725 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	3rd Year Maintenance & Support	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
81112201			

Extended Description :
3rd Year Maintenance & Support

INVOICE TO		SHIP TO	
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON US	WV25339-1748	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON US	WV 25301-1725

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	4th Year Maintenance & Support	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
81112201			

Extended Description :
4th Year Maintenance & Support

INVOICE TO		SHIP TO	
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON US	WV25339-1748	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON US	WV 25301-1725

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	5th Year Maintenance & Support	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
81112201			

Extended Description :
5th Year Maintenance & Support

INVOICE TO		SHIP TO	
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON US	WV25339-1748	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON US	WV 25301-1725

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
8	6th Year Maintenance & Support	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
81112201			

Extended Description :
6th Year Maintenance & Support

INVOICE TO	SHIP TO
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON WV25339-1748 US	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON WV 25301-1725 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
9	7th Year Maintenance & Support	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
81112201			

Extended Description :
7th Year Maintenance & Support

INVOICE TO	SHIP TO
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON WV25339-1748 US	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON WV 25301-1725 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
10	8th Year Maintenance & Support	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
81112201			

Extended Description :
8th Year Maintenance & Support

INVOICE TO	SHIP TO
OPERATIONS DIVISION TAX DIVISION OF PO BOX 11748 CHARLESTON WV25339-1748 US	REVENUE DIVISION TAX DIVISION OF REVENUE CENTER 1001 LEE ST E, STE 2 CHARLESTON WV 25301-1725 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
11	9th Year Maintenance & Support	1.00000	LS		

Comm Code	Manufacturer	Specification	Model #
81112201			

Extended Description :
9th Year Maintenance & Support

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

- [x] Addendum No. 1
- [x] Addendum No. 2
- [ ] Addendum No. 3
- [ ] Addendum No. 4
- [ ] Addendum No. 5
- [ ] Addendum No. 6
- [ ] Addendum No. 7
- [ ] Addendum No. 8
- [ ] Addendum No. 9
- [ ] Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

FAIRFAX IMAGING, INC.
Company

Authorized Signature

April 17, 2017
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

MICHAEL D. MINTER, VP Sales & Marketing
(Name, Title)
MICHAEL D. MINTER, VP Sales & Marketing
(Printed Name and Title)
2005 Pan Am Circle Drive, Suite 110, Tampa FL 33607
(Address)
813-881-1600 (Fax) / (703) 802-1220 (x103) (Office)
(Phone Number) / (Fax Number)
MMINTER@FAIRFAXIMAGING.COM
(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

FAIRFAX IMAGING, INC.
(Company)
Co-Owner, President
(Authorized Signature) (Representative Name, Title)
STEPHEN CHAHAL Co-Owner, President
(Printed Name and Title of Authorized Representative)
April 17, 2017
(Date)
(Office) 813-774-4758 / 813-881-1600 (Fax)
(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: FAIRFAX IMAGING, INC.

Authorized Signature: _____ Date: 4/17/2017

State of Florida

County of Hillsborough, to-wit:

Taken, subscribed, and sworn to before me this 17th day of April, 2017.

My Commission expires July 17, 2018.

AFFIX SEAL HERE

NOTARY PUBLIC _____

OKSANA SALEM
Notary Public - State of Florida
My Comm. Expires Jul 17, 2018
Commission # FF 142933

Executive Summary

Fairfax Imaging is offering its world-class *Quick* Modules solution and ibml ImageTrac scanners to the requirements stated within the West Virginia Tax Department (WV Tax) RFP for a Remittance Processing System. The solution proposed is the industry leading platform used by more state revenue agencies for remittance and forms processing than any competitive system. Many technical and business features have set apart the *Quick* Modules solution as the choice of others through rigorous RFP evaluation and demonstration.

Our solution proposal offers best "value" to WV Tax and encompasses three (3) distinct areas of benefits to the State – technology, Professional Services and ongoing support. From a technical approach, our solution incorporates the ibml ImageTrac 6400 scanners as the platform for high speed scanning of items into the workflow. The ImageTrac family of scanners is recognized worldwide as the industry leader for high speed scanning platforms, and is considered by most state revenue agencies as the workhorse of the industry. With over forty (40) State Revenue agencies using the ImageTrac scanners, they represent the best and most proven scanning platform for this industry.

The ImageTrac 6400 scanners will process a wide range of form sizes and weights, along with providing high quality imaging to the scanning and capture process within the workflow. Double feed detection, skew detection and correction as well as the ability to generate a programmable Document Locator Number (DLN) for each transaction while scanning are features of the ImageTrac 6400. The ImageTrac 6400 scanners are equipped with check identification and MICR as well as optical recognition of the check scanline for accuracy. Once identified, the ImageTrac 6400 scanners will perform physical sorting of the checks separate to the tax forms (and other items) in order to facilitate the Check 21 destruction process. Additionally, the scanners are equipped with barcode recognition (1D, 2D, PostNet and QR) to provide a wide array of form identification during the scanning/imaging step.

Quick Modules is designed to collect images from any centralized, remote, or external scanning device and process these as transactions intermixed, thereby minimizing the costly up-front sorts. The integrated workflow moves these taxpayer submissions through our solution expediting them, with very minimal up-front sorts, based upon business rules that are easily configurable, thanks to our highly graphical system configuration tools.

Quick Modules offers a common software platform and architecture to process all the forms scanned by the ImageTrac 6400 scanners without the need to marry two different systems together. This singular integrated approach provides significant processing flexibility and benefits as WV Tax moves forward in its next step to tax processing.

The application of several recognition engines and methods within *Quick* Modules provides the best possible translation of image to data for tax forms, checks and other documents. Stringent and robust business rules are provided to clean the data captured from the wide variety of tax forms. Electronic check deposit (Check 21) features of our system offers an automated method for depositing of checks eliminating the manual encoding and deposit process currently being performed by WV Tax.

Our solution includes real-time monitoring and reporting of the system performance. A highly informational activity monitor displays are provided to track the items throughout the workflow. The system provides both high level and granular views of the workflow to monitor operations, tasks within the workflow, and system performance. The *Quick* Modules System comes with our standard statistical reporting package along with the ability to create custom reports specific to WV Tax. Additionally we have included access to WV Tax current IFP stored report data to allow for historical reports to be generated from the same platform.

Another attractive aspect of our solution is the fact that it provides WV Tax to self-support the solution for both legislative changes and adjustments to the process. Thanks to the use of our highly graphical user-friendly tools, WV Tax staff, upon completion of training, can configure new forms, change existing forms, introduce business rules, change user permissions, add user groups, and alter the workflow based upon the needs of WV Tax. That is our pledge to WV Tax, and that power harnessed by our system cannot be underestimated.

Our proposal provides WV Tax with many technical features advantages that no other vendor can offer, including:

Technical Features of Proposed System:

- Full featured remittance system inclusive of three (3) environments (Development, Test and Production)
- High Speed ImageTrac 6400 Scanners of up to 429 8.5 x 11 pieces of paper per hour
- Configurable scanner jobs using SoftTrac Capture Suite; and conversion of existing WV Tax scanner parm files to new scanner platform
- Interface with existing GenTax systems for data transmission
- Thin client, web based architecture for user interfaces such as *Quick* Key, *Quick* Review, QMS, and *Quick* Workflow Monitor.
- Electronic Check Deposit processing (Check 21)
- Monitoring dashboard display from scanning process through the *Quick* Modules system.
- Graphical user interfaces
    - Touch Screen capabilities on ImageTrac 6400 scanners for ease of operation
- Complete system reporting tools
    - *Quick* Modules standard statistical reports
    - Legacy IFP data reports migrated to *Quick* Modules for reporting
- Secure environment with encryption of data at rest and in transit
- Standard file structures – no proprietary image formats
- Modular in design to add users, processors, workflows and other applications
- Full featured data capture including OCR (machine print), ICR (handprint), CAR/LAR, OMR, Barcode 1D, 2D, QR codes
- Library of business rules to select from and ability to create new ones based upon WV Tax's business requirements
- Configurable Math Block validation routines without writing custom code
- Virtual batching of similar tax types into queues for data entry operations
- Un-throttled processes for recognition allowing maximum productivity
- System encryption of data in transit and at rest

Secondly, Fairfax Imaging fully understands that, in order to be successful, a technically superior solution must also be implemented by an experienced team of project managers, business analysts, and support engineers. Our Professional Services Group (PSG) has successfully implemented more tax and revenue solutions in the last seven (7) years than any other vendor in the US. We could not stake this claim, not because we are the largest or the most affluent revenue vendor in the US. But, we can stake this claim because we took the utmost care to deliver each and every one of these mission-critical installations to our clients with the same devotion, resourcefulness, and discipline. This methodology has provided us with a wealth of subject matter expertise, technical know-how, and best practices; and we will make sure to bring these to bear within this project to ensure a solution for WV Tax that is unmatched in the industry.

There is no substitute for experience. Fairfax Imaging has been installing tax and revenue solutions for a number of years. Every system is different, and we have always successfully reconfigured each solution to account for the uniqueness of each particular tax processing environment. Our years of experience make us imminently qualified to bring the best of practices to all of our engagements. This expertise will be the difference between just a run-of-the-mill installation and one that will be the firm foundation upon which to build future applications.

Third, the system proposed herein is fully supported by a team of Fairfax Imaging support personnel. Our Support Services Group is located within the U.S. at our headquarters in Tampa, Florida. All personnel of this group are Fairfax Imaging employees, trained on the *Quick* Modules system. As a leading supplier of ImageTrac scanners, Fairfax Imaging's support group is well versed in providing first level call support and working closely with ibml in dispatching technical resources onsite to resolve ImageTrac scanning hardware issues. This single support approach provides WV Tax within one location to request and initiate support requests. As a full services support organization, Fairfax Imaging is fully committed to supporting the proposed system for the next nine years and beyond as required by the RFP.

Of course, all upgrades and subsequent releases of the *Quick* Modules software will be provided to WV Tax as part of our low maintenance fee.

In addition to the above highlighted technical, implementation and ongoing support features and benefits of the system. Fairfax Imaging offers WV Tax several distinct business advantages.

Unlike many of our competitors, Fairfax Imaging does NOT charge incrementally for increased volumes, we do NOT count pages or keystrokes, and we do NOT keep track of check volumes processed annually for increased revenue. Our value proposition to WV Tax simply means that, as the needs of the State grow in the future by perhaps adding on more work, taking on other agencies' processing needs, or acting as a lockbox for other departments, Fairfax Imaging will always provide any additional software licenses, free of charge, and as a good partner of the State. This licensing scheme clearly offers the best value to the State, and is irrevocable.

We are proposing to the WV Tax a licensing approach for the *Quick* Modules system that is unique and best value in the industry, in that it encompasses an unlimited, site-wide, perpetual, and un-throttled license to all of our proposed software modules. This means that the WV Tax will receive an unlimited number of server licenses and client seats from the project onset, and for the duration of the life of the system (not the initial implementation, but for the entire system life cycle, to include future upgrades). In

this manner, we can guarantee that our system will grow in lockstep with the State's growth needs, and always free of future licensing charges.

Business Advantages of Proposed System:

- Unlimited Licenses for all the *Quick* Modules proposed
- No click charges for recognition process; no volume related charges for licensing of software
- Used by more State Revenue Departments than all other competitive products combined
- Includes all the capabilities of a remittance as well as forms processing system to move to a single solution platform
- Single Vendor Support for the life of the system backed by a team of qualified service personnel
- Software upgrades to the system at no charge for the life of the system implementation

All in all, and most importantly, there is no substitute for references of installations similar (almost identical) to this WV Tax project. Fairfax Imaging has successfully installed in over thirty-three (33) state agencies, of which over twenty (20) are state revenue agencies.

Fairfax Imaging is committed to WV Tax success, and we view this project as a true partnership for WV Tax success. We look forward to working with WV Tax in the successful implementation of the proposed system.

Attachment A: Vendor Response Sheet

Provide a response regarding the following: firm and staff qualifications and experience in completing similar projects; references; copies of any staff certifications degrees applicable to this project; proposed staffing plan; descriptions of past projects completed entailing the location of the project, project manager name and contact information, type of project, and what the project goals and objectives where and how they were met.

Section 4, Subsection 3.1:

3.1 ***Project Experience and References:*** West Virginia Tax Department seeks proposals from firms with a minimum of three (3) years' experience in the design, development, and implementation of a Remittance Imaging Systems, with preferably at least five(5) systems installed at a revenue processing agency. This experience must have been gained prior to bid submission and may have been obtained from one (1) or more clients. The Vendor's experience must be with a system that was fully operational for a minimum of one (1) year where the project milestones and deliverables were met.

Each Vendor must describe the experience and knowledge the Vendor and the Vendor's proposed team has in the following areas, as it pertains to imaging and data capture projects, most preferably in the state government arena:

3.1.1. Vendor should explain their Experience with the implementation of remittance software for tax operations.

Vendor Response:

Fairfax Imaging complies with this requirement. We have over twenty-three (23) years of experience in the design, development, and implementation of Remittance Imaging Systems. We have over one hundred (100) systems implemented, with a large percentage performing remittance forms and image processing. Today, Fairfax Imaging stands alone as the premier provider of remittance imaging systems to state revenue agencies with over twenty (20) successful implementations.

Fairfax Imaging, Inc. was founded in 1994 to provide products, services, and solutions to the document management, data processing, and data entry industries, in the commercial and government sectors. With a solid base of system installations in the Commercial, Federal, and State marketplaces, Fairfax Imaging has gained a reputation as a premier solutions provider. By utilizing our solutions, our customers are able to perform their data capture tasks more efficiently and more productively. By doing so, these corporations have seen a tremendous improvement in the efficiency and productivity of their workforce. They were also able to reap immediate and tangible returns on investments.

In order to maintain the highest level of customer satisfaction, Fairfax Imaging has always embraced a customer-centric management approach. Our client organizations have been able to streamline their operations and become more lean and efficient after they have used and deployed our guidelines in the business reengineering domain, and have implemented in tandem our solutions that are coupled with our reengineering guidelines.

Every day, Fairfax Imaging's products and solutions are processing hundreds of millions of forms and checks, and depositing billions of dollars for our clients. In addition, Fairfax Imaging is a certified reseller and has many implementations of ibml Corporation ImageTrac family of products and services. In fact, Fairfax Imaging has been the largest reseller and integrator of ibml products in the US government space for many years.

Fairfax Imaging is headquartered in Tampa, Florida, with several satellite offices throughout the United States.

Corporate History

Fairfax Imaging staff possesses solid technical experience and knowledge in the implementation of high performance information capture, workflow, and check processing solutions. We offer unparalleled experience and proven track records of success in defining and implementing technology-based business process improvement and assisting with the organizational and cultural transitions involved. Below are a few of the corporate highlights since its inception.

- **1995:** Incorporation of the remittance and forms processing into one seamless solution enabling our customers to process both documents and payment items on the same scanner in a common workflow. To this date, Fairfax Imaging is still the only company in the United States processing forms and remittance processing using a system built from the ground-up, using one common workflow and one common database.
- **1999:** Fairfax Imaging was nominated as one of the Top 50 E-Business solution providers on the ORACLE platform by ORACLE and CMP Media, Inc. This award recognized the ability of Fairfax Imaging to apply its imaging expertise and combine it with a World Wide Web development platform to solve the E-Business needs of large corporations. Fairfax Imaging was chosen among hundreds of applicants in 28 countries, and it was the only imaging company to win the nomination.
- **2001:** Fairfax Imaging received Precision Images Customer of the Year Award by ServiceSource, in recognition of Outstanding Contributions to the Employment of Individuals with Disability.
- **2001:** The Federation of Tax Administrators (FTA) awarded the City of Washington D.C.'s tax system the Technology Achievement of the Year award. This award was based in part on an imaging system installed by Fairfax Imaging.
- **2002:** Fairfax Imaging was the recipient of the "Vision Award." This is an award honoring the IT initiative with the greatest potential to transform a business or social process. This award centered on a project performed by Service Source, a not-for-

profit concern that employs the mentally challenged in Virginia. Fairfax Imaging donated our software and services to Service Source, which has been using it to serve government and commercial clients.

- **2003:** Fairfax Imaging received the "Innovative Solution Award," an award recognizing a superior solution installed at the Ohio Bureau of Motor Vehicles for its creativity and its effectiveness.
- **2004:** Fairfax Imaging installs its first Check 21 processing application at the City of Virginia Beach.
- **2005:** Fairfax Imaging received the "Assistive Technology Award" by JWOD and NISH, in recognition of outstanding contributions to the employability of people with severe disabilities, in partnership with Service Source.
- **2007:** Fairfax Imaging announced the introduction of its thin client modules as part of the *Quick* Modules suite.
- **2009:** Fairfax Imaging was included in Software Magazine's Software 500 ranking of the world's largest software and service providers, now in its 27th year.
- **2012:** Fairfax Imaging announced that it is henceforth offering its full software suite as a SaaS model to its clients. This option harnesses the entire power of the *Quick* Modules suite, yet makes for a viable alternative to an initial investment associated with purchasing a large system.
- **2013:** Fairfax Imaging releases *Quick* Modules 5.0 a thin client enhanced version of the *Quick* Modules suite using a SQL database and offering both batch and transaction processing options and is included once again in Software Magazines Software 500 ranking of the world's largest software and service providers.
- **2014:** Fairfax Imaging celebrates its 20th Anniversary of Business Excellence of providing successful and highly acclaimed solutions to the remittance and data capture industry.
- **2015:** Fairfax Imaging announces the introduction of *Quick* Cashier; combining back office remittance operations with front office over the counter payment collection services for a truly integrated approach to handle all inbound payment collection for city, county and state agencies.
- **2016:** Fairfax Imaging is recognized by CorpAmerica Software and Technology Awards as "Best Information Processing Solutions Provider" and Most Innovative Information Capture Product: *Quick* Modules 5.0".

Key Executive Bios

Steve Chahal

Steve Chahal founded the company in 1994 with Tony Cristofano in Fairfax, Virginia, the city from which they took the company name. Steve is a leader in the image processing software

industry. His strategic vision for Fairfax Imaging guides the marketing and sales efforts for the firm and he is very involved with new business development.

Steve brings his years of experience in image processing to the firm, along with his passion for excellence from his team so they provide Fairfax Imaging's customers with service that is second to none. His international background results in Steve being fluent in six languages.

He holds a Master of Science degree in Systems Engineering Management from George Washington University and a Master of Science in Electrical Engineering from Wayne State University in Detroit. Steve's B.S. degree in Electrical Engineering, with a major in Computer Engineering, is also from Wayne State University. Prior to founding Fairfax Imaging, Steve held a senior leadership role with Grumman Data Systems.

Tony Cristofano

Tony Cristofano, in tandem with Steve Chahal, founded the image processing firm in 1994. His technical leadership for the programmers and project managers is vital to Fairfax Imaging's successful implementations for systems that handle millions of transactions per year.

Tony holds a Master of Science degree in Systems Management from the Florida Institute of Technology and a Bachelor of Science in Electrical and Computer Engineering from George Mason University. Prior to founding Fairfax Imaging, Tony was a Senior Systems Designer for Grumman Data Systems, Inc.

Michael Minter

As Vice President of Sales & Marketing, Michael Minter is responsible for Fairfax Imaging's customer-facing functions, including all sales, channel management, business development, and marketing activities.

Michael is a twenty-five year veteran of the payment processing and document imaging industry. He has an extensive experience in sales management and customer operations. Prior to joining Fairfax Imaging, Michael was Vice President, Solution Sales at Scan-Optics, Inc. and held executive account management positions at Computer Entry Systems and General Instruments. He holds a Bachelor of Science in Business Administration, a certification from Southern Methodist University in Executive Management and is a certified Information Capture Professional (ICP).

Donna Castello

Donna Castello's role as Vice President of Product Delivery is all-encompassing. She manages the team of Fairfax Imaging's PMPs as they oversee our customer projects. Donna is also responsible for directing Fairfax Imaging project planning and management, acting as the primary interface to customers, providing hands-on support of end-to-end system integration

from system design to installation at customer sites, overseeing integration of COTS software packages into end-to-end solutions.

Donna has been a certified PMP since 2005 and holds an MBA from Indiana Wesleyan University and a Bachelor of Liberal Arts degree from Western Illinois University.

Alex Umansky

Alex Umansky has been with Fairfax Imaging for over twenty (20) years and serves as its Director of Software Development. He has overseen many customer implementations of Fairfax Imaging software. Alex also manages customer requested system changes. As one of the original programmers who designed the *Quick* Modules software system, he is extremely proficient in setting up customer systems in a timely and efficient manner.

Alex holds a Master of Science degree in Applied Mathematics and Computer Science from Karzai Kharkiv National University in the Ukraine.

Robert Castello

Robert Castello, Director of Customer Support, is responsible for directing Fairfax Imaging's Support Services Division, which serves as the primary interface to customers, providing hands-on support, and solutions for customer system issues. In this capacity, support personnel provide client support and technical issue resolution via e-mail, phone, and other electronic methods. Robert's team configures client equipment to interface with *Quick* Modules software system with efficiency and provides training to clients in the use of system and applications. Robert is also instrumental in overseeing customer training activities.

Robert is a Cisco Certified Network Associate (CCNA), and a Certified Netware Engineer (CNE). He was previously employed by Tangent Fastnet and Nokia Corporation before coming to Fairfax Imaging.

Mike Manilli

As Controller, Mike Manilli is responsible for all day-to-day financial and accounting activities, including continual evaluation of internal controls, interfaces with external auditors in planning the annual audit, manages the banking relationship for cash operations and the lines of credit.

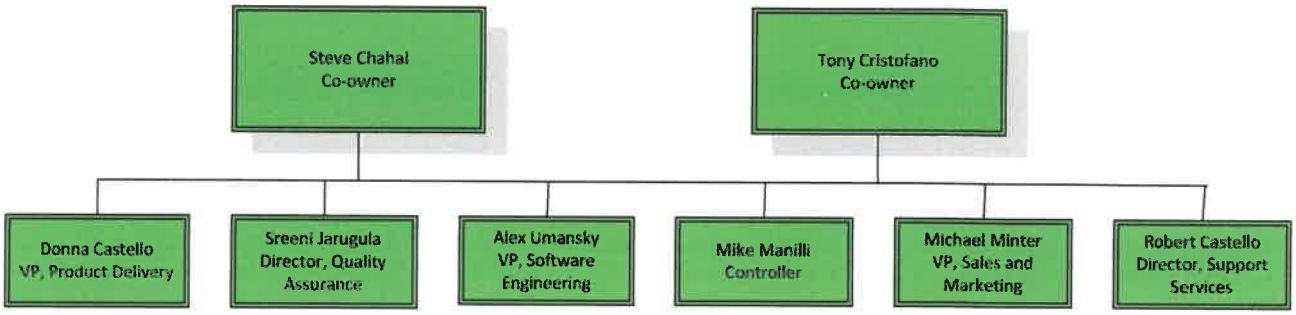
Michael has worked in the software industry for over 30 years. He has worked for Compucare, Baxter, Medical Consumer Media, and HealthAnswers. He holds a Bachelor of Science in Accounting from the University of Maryland and is licensed in the Commonwealth of Virginia as a Certified Public Accountant.

Corporate Structure and Organization

Fairfax Imaging is privately held organization with over sixty (60) employees all dedicated to the

sole and exclusive industry of remittance, forms, and image processing. Our corporate structure is by design one where limited layers of management exists to ensure close association of the client to our executive management team.

The leadership at Fairfax Imaging, Inc. as shown in the below organization chart, represents more than 150 years of combined experience in the state tax arena and in the data capture, workflow and check/remittance processing market.



Fairfax Imaging's corporate headquarters are located in Tampa, Florida with additional offices in Rockville, Maryland and Lexington, Kentucky.

As an experienced and leading provider of proven remittance, form, and imaging solutions world-wide, Fairfax Imaging is highly qualified to deliver the proposed solution to meet all of WV Tax requirements. Our expertise centered on payment and document processing has been attained from over twenty-three (23) years of business excellence and delivering highly successful implementations that meet our client's requirements.

Fairfax Imaging has extensive experience in performing similar, if not identical services as required within the WV Tax Request for Proposal. In fact, since 1994 our company has been focused exclusively on the market of providing innovative and cost effective solutions to the remittance, form, and imaging marketplace.

Our corporate experience is exhibited in the large number of clients which continue to grow and outpace our competition. The listing provided below of just a few of our many clients provides the example of our past experiences in implementing solutions which are relied upon for everyday use.

As a premier and leading supplier of ibml ImageTrac products and services, Fairfax Imaging has ample experience in the best practices of the use of these products in association with *Quick* Modules to offer the best value approach to WV Tax.

Client Base

Today, *Quick* Modules systems are processing billions of dollars and millions of transactions each day, across many industries both government and commercial. Within each, the same base software of *Quick* Modules is deployed yet configured to the unique requirements of each client. This flexibility allows Fairfax to provide a highly configurable solution that meets each and every client needs over a wide range of applications. As a user, this system capability provides for ease

of use and support as well as the capability to address a wide range of business needs.

The following are but a few of the over one hundred (100) clients of Fairfax Imaging and users of the *Quick* Modules software.

Public Government

Department of Motor Vehicle:

- California
- Colorado
- Texas
- Florida
- Ohio
- Virginia

Revenue Departments:

- Alabama
- Colorado
- Connecticut
- Delaware
- Georgia
- Illinois
- Indiana
- Iowa
- Maine
- Maryland
- Massachusetts
- Mississippi
- Montana
- New Hampshire
- New Jersey
- Oklahoma
- Ohio
- Rhode Island
- West Virginia
- West Virginia State Treasury Office (STO)

Local (City/County) Revenue Departments:

- City of Chicago
- City of Virginia Beach
- City of Philadelphia
- District of Columbia, DC
- Gwinnett County, GA

- Jefferson Parish, LA

Labor Departments:

- California
- Colorado
- Georgia
- Tennessee
- Texas

Commercial

Healthcare Clients:

- CVS/Caremark
- ESI/Medco Health Solutions
- CIGNA
- Kaiser Permanente
- BCBS of Rhode Island
- New York City Health & Hospitals
- Aetna
- Well-Partner
- Humana
- DaVita Healthcare

International:

- City of Vancouver
- ING Direct Bank
- Toronto Star

Non-Profit:

- Food for the Poor
- American Diabetes Association
- American Cancer Society

Order Entry:

- Checks in the Mail
- Winston Brands
- LandAmerica

From a solution perspective, each of the above accounts utilizes and relies daily on Fairfax Imaging award winning *Quick* Modules software. The reliability of the *Quick* Modules and its ability to address a wide range of unique processing requirements is exhibited in the above list of clients who process billions of dollars of transactions daily on our system offerings.

Unlike many of our competitors, the *Quick* Modules system does not attempt to marry two or more different products from different companies. Instead, our solution provides a unified approach to addressing the requirements and thus eliminates technology and business contentions of a more layered approach. Our entire organization supports our *Quick* Modules software since it is our central product offering.

3.1.2. Vendor should explain the Project management tasks including scheduling activities and resources, risk management, quality control, contingency planning, and issue management.

Vendor Response:

Fairfax Imaging System Implementation Methodology

Fairfax Imaging's project planning methodology is based on industry best practices and established standards derived from the PMI Institute's Project Management Body of Knowledge (PMBOK). We have adopted and deploy these strategies as part of our project development life cycle and they have proven successful on projects similar in scope and nature to that of WV Tax.

Each project consists of initiating, planning, executing, controlling/monitoring, and closing phases to provide guidance to the process. Within each of these, specific tasks enacted upon by the Fairfax Imaging team or provided deliverables ensure a defined approach to the execution of the project. Regardless of size of the project or phases, the methods used by Fairfax Imaging team allow proper management, planning, and execution to the overall goals and project implementation.

The overall approach is illustrated below.

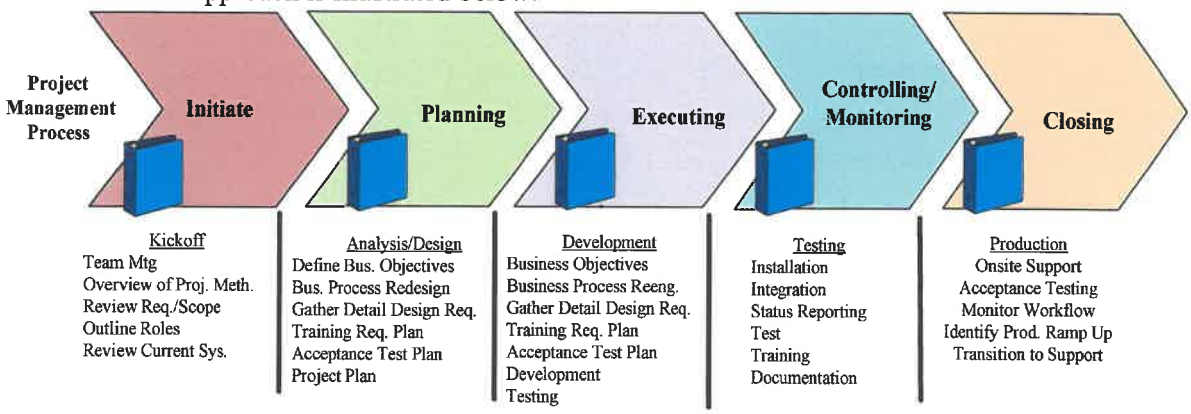


Figure 1 –Project Management Process

Fairfax Imaging will implement the project through deployment and use of a number of strategies that have made us successful in the past. These strategies are stated as follows:

1. Timely execution through measured project deliverables
2. Timely and meaningful project reporting and communication
3. Quality assurance and risk mitigation
4. Adherence to standards and processes
5. Implementation of a thorough test strategy in multiple phases
6. Application of internal quality control monitoring of project deliverables and project status
7. Application of the appropriate support structure

These are central to our overall corporate delivery methodology, and are documented and understood on a corporate-wide basis.

1. Timely Execution through Measured Project Deliverables

Fairfax Imaging will produce a number of project deliverables as progress is being made on the project and in strict accordance with milestones set forth and agreed upon as part of the Detail Design and Project Plan. We classify these deliverables, by type:

Project Management Deliverables:

Project Plan (Updated weekly throughout project)

Weekly Progress Status Reports; including tasks accomplished/planned, tracking of issues with resolution, and risk register.

Training Plan

Communication and Change Control Plan

Acceptance Test Plan

Risk Management Plan

Technical Deliverables:

Detail Design Document (including interfaces)

User Library/Exit Routines Functional Description

System Documentation

System Deliverables:

Training Material Deliverable

End User Documentation

System Test Plan

Final Project Report

These deliverables will be a final and integral part of the project, and will be owned by WV Tax. Should WV Tax require changes to the solution at a later time, they will have documentation and system descriptions to enable them to perform these changes readily and without necessarily

requiring the assistance of our technical teams.

Project Management Deliverables

Project Plan
Soon after contract award and following the detailed Joint Application Design (JAD) sessions with the WV Tax business and technical staff, our Project Manager will provide a project plan that is based upon the agreed upon Detail Design. This will take into account all the elements of the WV Tax system design and implementation discussions as part of the JAD sessions that were reached during the design session between Fairfax Imaging team and the WV Tax team.

Weekly Progress Status Reports
Fairfax Imaging Project Manager will have the responsibility to produce a weekly status report, outlining the latest developments on the project and how the team is able to meet the schedule. Weekly status reports will include requirements from all Project Management Plans. The schedule will be attached to the status report and the specific milestones highlighted as they are being met.

Training Plan
Fairfax Imaging Training Manager in conjunction with WV Tax Operation staff will prepare a custom training plan to suit the specific project requirements. This training will consist of training for:

- Operation staff
- Supervisor and Management (as needed) staff
- Technical and System Support staff (consisting of system configuration and infrastructure layout/build necessary to support the system and allow WV Tax to implement new forms, workflows, and business rules.)

Communication and Change Control Plan
A change control plan that covers all aspects of the change control process. This deliverable may also be updated or more specifically tailored to meet the specific project requirements.

Acceptance Test Plan
As part of the system design process, the Fairfax Imaging Project Manager provides the WV Tax with a document that is a full and complete Acceptance Test Plan, which outlines the approach and plan for completing a test of the technical components.

The Acceptance Test Plan has four primary components:

- Test of all the technical components
- Test of the ability to migrate between environments
- Regression testing to previous phases
- Performance test

Risk Management Plan
A risk management plan that shows the methodology that we employ to manage and mitigate risk at the corporate level as well as at the project level will be provided. This deliverable may also be updated or more specifically tailored to meet the project requirements, as the specific risk assessment for this project will be evaluated with the knowledge, both a-priori (pre-award) and a-posteriori (post JAD sessions) of the project conditions and the WV Tax expectations.

Technical Deliverables

Detail Design Document
At the inception of the project, Fairfax Imaging Project Manager will hold joint technical discussion sessions with various representatives of the WV Tax technical and user communities. These sessions will be detail oriented in nature, and will involve the project development activities, to include, but not be limited to business process re-engineering; the data capture aspect of the system, check processing, system interfaces and the other facets of the system design and implementation. These findings along with decision of how the system is to function will be captured within the Detail Design Document. WV Tax will have final approval of the Design Document.

User Library/Exit Code Functional Description
Once the system design and implementation have been completed and testing activities have culminated into a fully functional system, a detailed user exit functional description document is turned over to WV Tax for any user exits which may have been required as part of the configuration. It should be noted that *Quick* Modules 5.0 is a highly configurable product where business rules, workflow setup, field recognition and other aspects of the system are simply configuration activities to set up the system. However for any extreme business requirement, the system has the ability to include user exits to address these unique functions. Please note that Fairfax Imaging will begin working on this deliverable at the very inception of the project, as soon as the JAD sessions are over. WV Tax is privy to the contents and format of this deliverable. However, this deliverable in its final form will not be officially handed to WV Tax until the system has been transitioned over to WV Tax personnel for production.

System Documentation
Fairfax Imaging will provide all system documentation to WV Tax technical personnel (IT staff) and system administrators. The system documentation will consist of the following two document types:

Vendor Documentation
Fairfax Imaging defines vendor documentation as those manuals and other materials provided by the manufacturer relating to each manufacturer's individual hardware (if applicable) and software product. All vendor documentation provided by Fairfax Imaging is in compliance with version levels and current operating procedures used to install and maintain the system environment.

System Documentation
Fairfax Imaging defines system documentation as the manuals, specifications, and guides prepared as part of the system development life cycle. The systems documentation ensures

that WV Tax employees have the information needed to operate the equipment, troubleshoot at a basic or detailed level, and maintain the database.

System Deliverables

Training Material Deliverable
Prior to training commencement, the Fairfax Imaging Training Manager will prepare a set of outlines and handouts that will accompany the trainer during the training sessions. These illustrative elements include "cheat sheets," small notes, and other visual material as necessary for training to be conducted in an efficient and practical manner.

End User Documentation
End-user system procedures prepared by Fairfax Imaging give step-by-step instructions that allow the end-user to accomplish a wide variety of tasks without the need for assistance. These procedures cover entry of data, specification of outputs, and operation of information system equipment such as scanners, workstations, and other relevant aspects of the proposed solution.

System Test Plan
Following the JAD sessions with WV Tax and the technical communities at the WV Tax site, Fairfax Imaging Project Manager will provide a detailed system test plan that will include the following elements at a minimum:

- Unit testing
- Regression testing
- Stress testing
- System testing
- Acceptance testing

Final Project Report
At the end of the project development and implementation stage, Fairfax Imaging Project Manager will provide a final project report with the lessons learned.

2. Timely and Meaningful Project Reporting and Communication

Fairfax Imaging maintains open lines of communication among Fairfax Imaging team members on the one hand and with the WV Tax team on the other. These open lines of communication are used with the WV Tax from project inception to completion. The same principles continue to apply beyond project completion, when the project transitions into maintenance mode.

The communication vehicles between Fairfax Imaging and the WV Tax staff, primarily the WV Tax Project Manager will be:

Team meetings
From the inception of the project, there will be regular meetings between the Project Manager and WV Tax staff. These meetings will be initially held two or three times a week or more depending upon the need. As the project matures and the development progresses, team meetings can be held weekly. Team meetings ensure that all issues and topics surrounding the project are covered and understood openly. Our objective is to foster a team environment, with an overall "can do"

attitude, that infuses enthusiasm and open communication.

Weekly Progress Status Reports
The Project Manager will produce a weekly status report, outlining the latest developments on the project and how the team will comply with the schedule. Weekly status reports will include requirements from the Project Management Plans. Such reporting will be attached to the status report and the specific milestones highlighted as they are being met.

Weekly status meetings
The Fairfax Imaging Project Manager will, with key members of the Fairfax Imaging implementation team, conduct a weekly status meeting with the WV Tax technical and managerial staff, particularly the WV Tax Project Manager. During these meetings, the weekly status report will be discussed in detail, and the issues surrounding it explored and analyzed.

Change Request
Fairfax Imaging is firmly committed to meeting the requirements stated by the WV Tax RFP and further defined and agreed within the signed Detail Design. However, we recognized that throughout the course of the implementation changes may be identified that could improve the overall original design or simply to clarify specific deliverables agreed upon. Throughout the project we will abide by the required protocol of documenting any requested or identified change. The Fairfax Imaging Project Manager will submit project change requests, to the WV Tax designated Project Manager along with identifying any costs associated or impact to the project timeline. The WV Tax Project Manager will review and analyze project change requests and make a recommendation to Fairfax Imaging Project Manager. No changes will be made without the written approval of WV Tax. The WV Tax Project Manager will receive and evaluate vendor deliverables from the vendor then respond to the Fairfax Imaging Project Manager with notification on the evaluation.

Significant reviews or meetings:
We suggest the following scheduled meetings.

- Kick-off meeting
- Weekly status meetings
- Constant interaction as a team
- Change request handling meetings

In addition, our Project Manager and Fairfax Imaging technical architects and specialists will be available to meet on an ad-hoc basis if needed to meet certain specific requirements that were not met during regular meetings.

3. Quality Assurance and risk mitigation

Through our structured implementation methodologies, best practices and measured tasks that are monitored throughout the process, WV Tax is assured of quality deliverables. Our general approach to total quality management of the project delivery and execution consists of the deployment and execution of these strategies. All of these strategies are part of our overall corporate delivery methodology, and are documented and understood on a corporate-wide basis.

As with any project, risks are encountered and mitigated during the project implementation. Fairfax Imaging's Project Manager will deliver a Risk Management Plan. Risks will be reviewed weekly during a weekly Risk Meeting. Those risks are then added to the Risk Register and delivered weekly with the Status Report.

4. Adherence to standards and processes

Our process for software development is clearly structured around life cycle management methodologies that have proven their effectiveness and are industry-standard for developing applications. As part of the proposed project, Fairfax Imaging will adhere to the PMI standards for Project Implementation activities as well as infrastructure requirements for the IT environment.

Additionally, Fairfax Imaging *Quick* Modules solution is readily compatible with industry standards such as IRS Publication 1075. Being the premier provider of imaging solutions in state revenue departments, Fairfax Imaging has developed a great deal of experience installing systems that conform to the requirements contained in these publications. Fairfax Imaging pledges to put all of this experience at the service of WV Tax, to ensure that our system meets these requirements.

5. Implementation of a thorough test strategy in multiple phases

Under the direct supervision of our Project Manager, Fairfax Imaging will perform the various testing functions, at the various stages in the project lifecycle. This incremental test strategy will be required to provide a sound working system. Fairfax Imaging will develop a test plan based on our proven methodology of successful implementations of imaging and data capture systems. This test plan will be developed by Fairfax Imaging, with considerable input from WV Tax.

The Test Plan becomes a deliverable from Fairfax Imaging to WV Tax, and will ensure that when the system goes into production, it will meet or exceed WV Tax's requirements. The testing functions are:

- **Unit testing:** This function is necessary to ensure that system components provide the functionalities required by WV Tax.
- **System testing:** This function is necessary to ensure that system components as a whole support the requirements in the Detail Design document. Fairfax will establish a fully functional and operational test environment for WV Tax.
- **Test, report, fix cycle:** This function is necessary for independent testing and validation of system components against the requirements. The Fairfax Imaging QA testing team will forward a testing report to the Project Manager, which will outline the errors and bugs found during the process, including hardware, software, and user errors. The Fairfax technical team will correct the errors and bugs, and then allow for the Fairfax QA testing team to re-test the system to check that the errors have been remedied. During this stage, Fairfax will ensure that the system output is compatible with the existing system, and that the system implementation lends itself to the WV Tax's environment.

- **User acceptance testing:** Fairfax Imaging will work closely with WV Tax during the user acceptance testing (UAT) period to ensure all technical and operational aspects of the system are meet prior to WV Tax acceptance.
- **Regression Testing:** For each subsequent phase delivered and prior to the start of UAT testing for future phases, the Fairfax Imaging QA test team will complete the regression testing. The Fairfax Imaging regression test will be performed on the Fairfax Imaging system as built for WV Tax in the test environment. The purpose of the regression test is to verify that the base Fairfax Imaging components, which were not modified as part of the future phase, still perform as expected.

6. Application of internal quality control monitoring of project deliverables and project status

Fairfax Imaging is a flat, flexible, and customer-focused organization. These attributes make Fairfax Imaging particularly well-suited to handle effective monitoring of the project activities, not just at the project management level, but also at the organizational level as well.

Fairfax Imaging is organized around a team-oriented management approach from the top down. Our team approach helps us cope with events and opportunities in a proactive manner. In addition, it allows each member of the team to contribute equally to the success of the team, and in turn to the success of the organization at large. This translates into better products and services to our clients.

This team approach allows Fairfax Imaging to be a "transparent" organization whereby each member of the team is fully cognizant of the developments taking place within the team and the organization. This "transparency" helps mitigate the risks associated with one single bottleneck or one point of failure within the organization.

Our Project Manager is a seasoned individual, whose talents cover a blend of technical expertise as well as project management success. Hence, when the Project Manager inspects and monitors the activities of the team, and presents to the WV Tax team, he/she ensures that he/she understands the technical aspects and matters behind the technology that is being developed, and presents it in a way that the customer can readily accept.

The Project Manager monitors the projects activities through:

- Monitoring development activities within the team
- Reviewing deliverables prior to submittal
- Reporting back to the team the client's expectations
- Presenting to WV Tax the team's latest activities and milestones.

Every Project Manager is required to make monthly presentations to the management of Fairfax Imaging. At these meetings, all issues pertinent to the project are discussed. The Fairfax management will closely review the project, thereby assuring that the project will successfully meet WV Tax expectations.

7. Application of appropriate support structure

Fairfax Imaging fully understands that a system with this level of complexity and scope cannot be

successful if built in a vacuum. Hence, we have devised a support structure, which will allow us to work as a team with WV Tax to achieve the type of quality outcome that is expected with this kind of solution.

Our systems are delivered to WV Tax with full backup and support. We stand by our system every step of the way from inception to completion, and during production.

The phases of support that we pledge to provide WV Tax are as follows:

Interactive design sessions - Our Project Manager, Business Analyst and technical architects will work side-by-side with WV Tax technical and managerial teams for mentoring, exchange of ideas, concepts and technical interaction.

Knowledge transfer – From the very inception of the project, to formal training, we will transfer the knowledge to WV Tax staff. Our objective behind this strategy is to do everything possible to ensure that certain members of WV Tax staff become the system's gurus after we finish our on-site support period and we transition into the warranty and maintenance periods.

Team-based system testing – The Fairfax Test Team will work hand-in-hand with WV Tax to ensure proper system testing, while ensuring that the system is meeting or exceeding WV Tax requirements. We will establish a fully functional and operational test environment for the customer.

Full service training – Our trainers will provide WV Tax with the training required to operate, manage, modify, support and understand the system from the operational, technical, and administrative perspectives.

Post implementation support – We pledge to provide WV Tax with on-site expertise to support them during the first production ramp-up period. This will provide coverage for a period to be agreed upon by Fairfax Imaging and WV Tax.

Full warranty period support – Beyond our on-site support during the initial production ramp-up, we pledge to remain available and ready for issues, enhancements, modifications, or improvements during the warranty period of the system.

Maintenance support – We believe in long-term relationships with our customers and will provide continuity in the support activities in the maintenance period for the system economic life. This maintenance support will extend to the proposed ImageTrac scanners as well.

3.1.3. Vendor should explain their System's design, development, and implementation projects.

Vendor Response:

To ensure a successful implementation with an outcome that satisfies the WV Tax RFP during the initial weeks of the project life, we propose to the WV Tax a full series of JAD sessions and BPR analysis sessions, which culminates in a written procedure for a new, more efficient, and more streamlined, integrated workflow. Our methodology involves a structured and well-documented process.

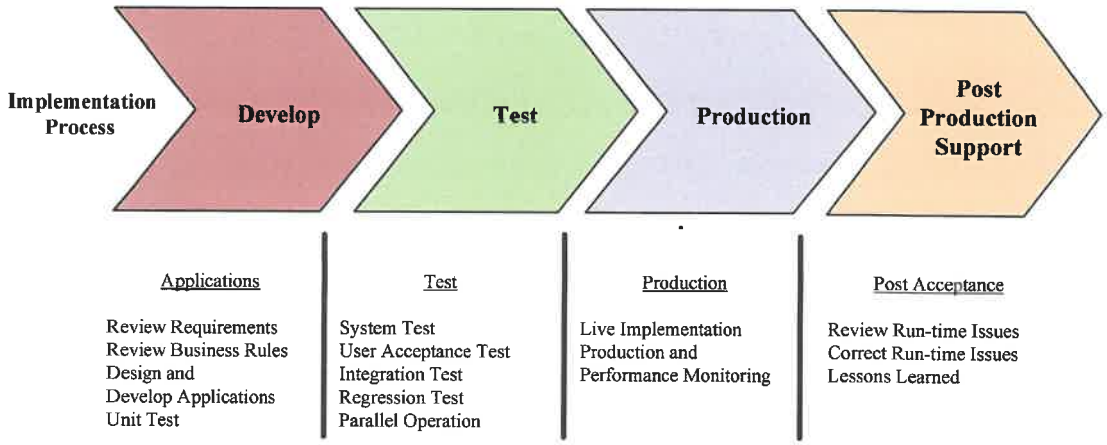


Figure 2 – Implementation Process

The highlights of this process follow:

- At project inception, our management specialists travel on-site to the WV Tax location to interview WV Tax personnel at various levels of the organization, namely, the users, the IT specialists, the supervisors, and management.
- These interviews are usually detailed in nature, following pre-established written guidelines modeled after the Project Management Body of Knowledge (PMBOK). The goals are to define the current operations in their nature and scope.
- Once these interviews are conducted, our management specialists formulate an analysis document of the WV Tax business processes to include current workflow, current operations, staffing, decision-making processes, structure, organization, and areas of functional responsibility.
- The WV Tax is given the opportunity to review, critique, and approve this analysis document, as representative of the environment in which the WV Tax operates.

- Our Project Manager present these scenarios to the sponsoring management groups within the WV Tax to determine the level of change that can be absorbed, the degree to which this change can be effected, and the deployment schedule for such change to take place in an effective manner that coincides with the technology deployment.

Following our formal JAD sessions and BPR phase, we develop a system detail design document, which contains the requirements and the solution to satisfy the WV Tax business and IT processing needs. This document is a cornerstone for the rest of the system's development and implementation efforts. It is extremely important that WV Tax sign off on this document, before any major systems configuration or development activities are finalized.

The WV Tax is given the opportunity to review and approve this design document as a clear representation of the solution which the WV Tax envisions. Our system detail document also incorporates any reengineered business processes that were discovered during the JAD and BPR sessions. This step is critical for the mutual understanding of the system requirements beyond the RFP language and the various other discussions during the previous sessions and oral presentations.

Once the WV Tax approves the design document, the project implementation begins in earnest, in full compliance with the design document. Throughout the project implementation life cycle, the Fairfax Imaging VP of Product Delivery works closely with the Fairfax Imaging Project Manager and Team to ensure that all of the project milestones are met in a timely manner and reports on their progress and achievement in each status report and during each status meeting.

Staff Training
Fairfax Imaging places a great deal of emphasis on training as an integral part of the installation process, because we believe that the system only produces the expected results when operated by well-trained personnel.

Implementation Prerequisites
The installation services plan is based on the assumption that WV Tax facilities and resources will be completely available prior to the start of the installation. This includes key WV Tax personnel.

Implementation Description
The implementation will proceed in a phased approached with a set of tax types pre-defined by the WV Tax to be completed for each phase. Although these phases may overlap to optimize the implementation schedule and to make the most efficient use of both WV Tax and Fairfax Imaging resources, each phase will be brought to full acceptance before installation will be completed for the next.

The implementation process of each phase is organized into discrete steps as follows:

- Equipment installation and readiness
- Application design and development

- Staff training
- Application installation
- Acceptance Test
- Post Installation Activities

Application Installation
Fairfax Imaging will provide a test, development and production environment. The migration to the test environment from the development environment will show that the requirements satisfy the system requirements produced by the JAD sessions mentioned above. WV Tax will be shown how the various programs and subsystems load and a simulated walk-through of the system will be performed. The functionality of the test system will be matched to both the retained features of the current system and the expected enhancements of the new system. A key part of this effort will be to show that the tested system runs end-to-end and produces the required results.

Installation Activities
An installation readiness checklist will include the following items, as appropriate:

- Verify required documentation is in place and approved
- Verify System/Integration and Production Readiness Tests have been successfully Conducted
- Verify all hardware/software configuration steps are documented and tested
- Verify Go/No Go Criteria and Back-out Steps are defined.

A Go/No-Go meeting will be held to review the installation readiness checklist and determine if the planned implementation can occur as scheduled. Upon a Go decision, the installation will be performed.

Following installation, the customer acceptance test will be executed to verify that the solution operates as specified in the acceptance criteria. As issues are identified, details will be captured, logged, and resolved as required.

Acceptance Testing
As part of the system detail design process, the Fairfax Imaging Project Manager provides the WV Tax with a document that is a full and complete Acceptance Test Plan, which outlines the approach and plan for completing a test of the technical components.

The Acceptance Test Plan has four primary components:

- Test of all the technical components
- Test of the ability to migrate between environments
- Regression testing to previous phases
- Performance test

The outcome of the test is the confirmation that the installation, the environment, and all components are able to support the development, testing, and production operation of the solution within WV Tax's framework.

The purpose of this test is to ensure that the design of this solution has been properly implemented and that the infrastructure and architecture can support the development, execution, and operations of the system.

The scope of the Acceptance Test includes the following elements:

1. A comprehensive test of all the technical components involved in the solution provided, from scanning to upload of the data to the back end environments.

2. A comprehensive test of the systems overall performance as it relates to the documented objectives and targeted performance goals.

The scope of the Acceptance Test Plan document includes the following elements:

1. An approach for creating test cases and data.

2. An approach for executing the tests.

3. An approach for identifying and tracking problems and defects.

4. An approach for managing the testing environment and configuration separately from the development and production environment.

Post Installation Activities

As each installation phase completes, there will likely be lessons learned that will be of benefit to the remaining phases. The Fairfax Imaging and WV Tax project managers will jointly assess the readiness of each phase in terms of testing, training, architecture (hardware, software, network), and communication. The lessons learned will be utilized to provide continuous improvement in the installation process for subsequent installation phases.

In addition, Fairfax Imaging will supply post-implementation support to the WV Tax solution following completion of each phase to ensure successful operation and transition. This activity will be scheduled during peak, or critical periods of processing timeframes.

3.1.4. Vendor should explain their proposed training as it relates to end users and development staff, including instructions on new forms training.

Vendor Response:

Fairfax Imaging provides all the training necessary to operate the proposed system. Fairfax Imaging instructors are experienced in the field of system training and have conducted courses on similar systems in the past.

Training is one of the hallmarks of our services, and as such, we can't over emphasize the importance of the training aspects of our solution. In addition to the formal hands-on training that we provide WV Tax, we stress the importance of other types of knowledge transfer like on-the-job training, mentoring, and job shadowing.

Fairfax Imaging places a great deal of emphasis on training, because we believe that the system will only produce the expected results when operated and administered by well-trained personnel. The training that will be provided to WV Tax for the system for the *Quick* Modules and ImageTrac 6400/SoftTrac Capture Suite components of our proposed solution includes:

- **Operators:** Operator training includes methods of logging in, system initiation, and logging off, and also day-to-day operation, such as data balancing, key correction, scanning, exception handling, and other relevant information necessary for the proper operation of the system.
- **Supervisors/Management:** Supervisor training includes operator-level training, high-level system overview, and training of the supervisory tools available, including dashboard status, reporting and monitoring tools.
- **Technical and System Support:** System technical and support training will cover operational aspects of the scanning equipment, including use of systems software and any application software developed for, or provided under, this contract. This training will also include configuration and setup of the system to allow WV Tax to add new forms, users, workflows and other technical functions to the system.
- **Train-the-Trainer:** Fairfax Imaging believes strongly in providing Train-the-Trainer instruction in both operational and technical support training for as many WV Tax personnel as required.

As part of the training deliverables, Fairfax can provide professional assistance, consultation, and recommendations in redesigning forms for efficient offline recognition process. This effort focuses on all forms inclusive of any improvements for structure as well as unstructured methods to achieve the highest possible accuracy.

We propose a methodology for training that will include a step-by-step procedures and directions in the use of the proposed system (software and hardware) through all the activities

supported by the solution. One that combines both formal and on the job training processes, using the following four-tiered approach:

1. **Mentoring:** Throughout the development period and while the system is being prepared and tested, the resident on-site staff will offer WV Tax continuous support and mentoring through the infusion of ideas and practical experience between the teams.
2. **Formal training in a classroom setting:** This is a formal session with projected presentations and handouts. These sessions are interactive with the audience, and have proven to be effective in imparting the theory prior to the practical sessions.
3. **On-the-Job training:** This is one of the most effective ways of transferring the knowledge that is needed to run the system and having it retained for the longest period of time. This method has proven that the knowledge imparted this way has the greatest effectiveness in terms of application of the knowledge and retention of the information by the target audience.
4. **Post-production:** During this period, our on-site resource will be focused on mentoring in the live production environment. This combination of mentoring, on-the-job training, and team work will assist the WV Tax personnel to handle the systems operations from that point on. We find this period of support to be important to the success of our customers in terms of effectively operating the system.

We believe that this methodology will yield trained, qualified WV Tax staff to show the value of the system, and take advantage of its potential. A well-trained user community is also able to reap benefits from the system to the fullest extent. This methodology is proven and we have used it successfully on other projects. Many of our customers have given excellent feedback with regard to the effectiveness and longevity of the knowledge imparted. In order to improve our training methods and techniques, we welcome the WV Tax's comments. At the end of each training session, Fairfax Imaging trainers will submit comment cards to the attendees in order to solicit feedback. This information and feedback is monitored by our Project Manager and Fairfax Imaging uses them as input to a process of continuous improvement. We encourage the WV Tax to make suggestions for improvement, and to propose other training techniques.

The following conditions typically govern the training environment:

- Scheduling of courses will be subject to mutual agreement between Fairfax Imaging and the WV Tax.
- Training will focus on the system on-hand (i.e., how the system works and how it goes about its operations) and not on basic concepts such as OCR/ICR or MS-Windows.
- All trainees will be provided with appropriate manuals, text materials, and course outlines necessary for the specified training.
- Fairfax Imaging will develop and provide implementation plans and a training curriculum to the WV Tax project manager.
- Fairfax Imaging will develop, with WV Tax a troubleshooter manual and a user manual.

- Manuals will be made available to WV Tax personnel during the implementation and final copies will be provided as part of the Systems acceptance process. These manuals will be the appropriate manual for each class and for each class participant.
- Fairfax Imaging will prepare a comprehensive training plan and submit a written curriculum to the WV Tax project manager for approval two months prior to training.
- Training will take place at WV Tax's location, Monday through Friday during normal business hours.
- Fairfax Imaging will furnish user and operator manuals for any supplied hardware and software provided under this contract.
- Should the documentation provided under this contract undergo revision or updating prior to system acceptance, Fairfax Imaging will supply the customer with the revised documentation.

Sample Training Plan

The following is a typical operator training plan for similar Fairfax Imaging systems. We are including it in this document to demonstrate our ability to create and implement a well thought out and complete training curriculum. For each type of training (operator, supervisor/management and technical/support) a complete agenda will be developed which addresses the deliverables specific to WV Tax.

The training plan for WV Tax will be a comprehensive curriculum submitted in writing to the WV Tax Project Manager for approval two months prior to the training. The training plan for WV Tax will allow sufficient time to meet each of the course objectives.

Training Sessions	Suggested Participants	Time
***Quick* Modules Overview**		
As a part of this training session, participants will: ✓ Understand the functions of the *Quick* Modules System ✓ Outline the remittance and data capture processing workflow ✓ Understand the purpose of *Quick* Modules applications: o *Quick* Workflow Input o *Quick* Enhance o Batch Integrity o *Quick* Capture o *Quick* Key o *Quick* Review o *Quick* Transform o *Quick* Web o *Quick* Output o *Quick* Check 21 o *Quick* Reports ✓ Understand how different queues can be tied to *Quick* Key, QWS and *Quick* Review	*All Hands*	**2 hours of instruction**
***Quick* Key**		
As a part of this training session, participants will: ✓ Receive instruction on the use of *Quick* Key to perfect data and balance transactions ✓ View demonstration of the use of *Quick* Key ✓ Practice using *Quick* Key	*Data Entry Operators and Supervisors* *Optional: Reviewers who handle exception queues*	**1 hour of instruction** **1 hour of hands on lab**
***Quick* Review**		
As a part of this training session, participants will: ✓ Receive instruction on the use of *Quick* Review to handle exceptions ✓ View demonstration of the use of *Quick* Review ✓ Practice using *Quick* Review	*Optional: Data Entry Supervisors*	**1 hour of hands on lab**
***Quick* Workflow Monitor (System Dashboard)**		
As a part of this training session, participants will: ✓ Learn how to interpret the dashboard ✓ Learn how to identify bottlenecks and aged items ✓ Learn how to drill down to individual Work Objects ✓ Learn how to check user productivity ✓ Practice using *Quick* Workflow Monitor	*All hands*	**1.5 hour of instruction** **30 minutes of hands on lab**

Training Sessions	Suggested Participants	Time
***Quick* Reports**		
As a part of this training session, participants will: ✓ Receive instruction on the use of *Quick* Reports. ✓ View demonstration of the use of *Quick* Reports. ✓ Practice using *Quick* Reports.	*All Supervisors*	**30 minutes of combined instruction and lab**
***Quick* Deposit Monitor**		
As a part of this training session, participants will: ✓ Receive instruction on the use of *Quick* Deposit Monitor ✓ View demonstration of the use of *Quick* Deposit Monitor ✓ Practice using *Quick* Deposit Monitor	*Users with access to Quick Check 21 Deposit Monitor*	**1.0 hour of combined instruction and lab**
***Quick* Modules Studio (QMS)**		
As a part of this training session, participants will: ✓ Lean to add users and user Groups, ✓ Learn to add and modify existing jobs ✓ Learn to add and modify Work Objects (WOB's) ✓ Learn to add and modify tax families ✓ Learn to import data into the workflow ✓ Learn to interface to the database ✓ Learn to interface to outside databases ✓ Learn to add and modify business rules ✓ Learn to add forms and form files ✓ Learn to associate Work Objects with images and users ✓ Learn to find database elements and run queries within the workflow ✓ Learn to add Work Objects ✓ Learn to change priorities on Work Objects ✓ Learn to build, configure, and modify a visual workflow from scratch using graphical tools ✓ Learn to add roles and priorities to job profiles	*System Administrators*	**8.0 hours of combined instruction and lab**

Documentation

End-user and supervisor documentation includes the following:

- Operations Manuals
- Procedures Manuals
- System Flow Diagrams
- Hardware/Software Installation and Maintenance
- Work Flow Diagrams
- Document Preparation Specifications
- Any documentation provided by the hardware or software manufacturer.
- Data Dictionary
- *Quick* Modules System Administration Manual
- *Quick* Key Administration Manual
- *Quick* Web Administration Manual
- *Quick* Modules Studio Manual
- *Quick* Monitor User Manual
- *Quick* Review User Manual
- *Quick* Report User Manual
- *Quick* Key User Manual
- *Quick* Check 21 Deposit Monitor User Manual

3.1.5. Vendor should describe their proposed testing methodologies.

Vendor Response:

Under the direct supervision of the Fairfax Project Manager, Fairfax Imaging will perform the various testing functions that will be required to provide a successful working system. Fairfax Imaging will develop a test plan based on our proven methodology of successful implementations of imaging, remittance, and data capture systems similar in nature and scope to WV Tax.

Coupled with the initial design effort, Fairfax Imaging Project Manager will identify the test plan that incorporates all facets of the solution and form types aimed at ensuring complete testing of all modules and routines delivered as part of the solution. This document is part of our standard project methodology and is required by the Project Manager as part of their duties within Fairfax Imaging. The document entitled Acceptance Test Plan ("ATP") will be delivered to WV Tax and will be one of the documents required for approval by WV Tax's Project Manager. The ATP will provide the approach and plan for completing a test of all components delivered with the system.

The scope of the ATP document includes the following elements:

1. An approach for creating test cases (scripts) and data for user acceptance testing
2. An approach for executing the tests; training users how to perform tests scripts
3. An approach for tracking problems and defects
4. An approach for managing the testing environment and configuration separately from the development and production
5. Definition of responsibilities and assistance for both technical teams (WV Tax and Fairfax)

The purpose of this testing will be to ensure that the design of this solution has been properly implemented and that the infrastructure and architecture can support the development, execution, and operations of the system within WV Tax as defined with the detail design that was confirmed and agreed upon by both WV Tax and Fairfax Imaging.

As part of the solution provided a complete test environment will be established separate from development and production environments in order to facilitate testing without disruption to production. Regression testing will be conducted for each module and overall system testing for any new applications and/or form types that are implemented throughout the various phases of the project.

Fairfax Imaging offers a comprehensive approach to its testing methodology that includes unit and system testing steps prior to User Acceptance Testing (UAT) by WV Tax. Fairfax Imaging will utilize its Quality Assurance staff in support of the proposal Project Team. Fairfax QA staff will perform testing functions prior to delivery of the solution to WV Tax. The test cases used by Fairfax Imaging's QA staff will be those created and supplied by WV Tax. The test cases will consist of the scripts for exercising the system against the WV Tax set of business rules as well as the sample set of transactions used for each test.

Each testing portion outlined in the proposed project plan will be submitted to the WV Tax Project Manager for approval prior to execution of the test. All bugs/issues discovered during any phase of the testing process will be logged within the Fairfax Imaging RT Tracking system. The RT tracking system will be available for access by WV Tax personnel and will be the repository for issuing, tracking, and resolution of all issues identified during the project implementation. The WV Tax Project Manager will provide final sign-off of all testing phases, unless stated otherwise.

System Acceptance will consist of:

a) Fairfax will be responsible for all testing of all proposed hardware purchased from Fairfax Imaging, software and network components; and integrated system testing of systems, sub-systems, and interfaces relative to the major phase and system phase acceptance.
b) WV Tax personnel will participate during this process.
c) Fairfax's Project Manager will be available in person or by telephone to any member of WV Tax team.
d) Fairfax Imaging Project Manager will be on-site at various times during the system acceptance phase to assist and facilitate the testing conducted by WV Tax.

User Acceptance Testing will consist of:

a) User acceptance testing for each phase defined in Acceptance Test Plan.
b) WV Tax will perform the Acceptance Test Plan with the assistance of Fairfax's Project Manager.
c) The Fairfax Project Manager will be available in person or by telephone to all WV Tax staff.

d) Final User Acceptance Test sign-off will be made by the WV Tax Project Manager
e) At the completion of the Final User Acceptance Test, the Training Program Acceptance sign-off will be made by the WV Tax Project Manager. The WV Tax may delay sign off on the Training Program until the completion of the User Acceptance Test

Deliverables of the Acceptance Test will include, but not be limited to:

a) Acceptance Test Plan
b) A description of all testing processes which took place
c) Documented results of the testing process
d) Documented design changes as a result of the testing process
e) Revised Instruction Manual(s), Operations Manual and other documentation as a result of the testing process
f) Acceptance Sign-off of the system by WV Tax Project Manager

3.1.6. Vendor should describe their developing and managing conversion/migration efforts.

Vendor Response:

Fairfax Imaging is experienced in implementing systems where it is required to manage the conversion to a new platform. Nearly every single implementation that Fairfax Imaging has conducted has consisted of managing this conversion process and in some cases has involved actual moving prior stored data elements such as images and data from legacy systems to the new *Quick* Modules 5.0 system.

As a premier provider of remittance and data capture solutions, Fairfax Imaging has implemented the proposed system in a similar replacement activity of an IBM IFP system at Maine Revenue Services. In addition we have implemented *Quick* Modules 5.0 system platform in replacement of our former software *Quick* Modules 3.0. These combined efforts offer WV Tax confidence in our ability to manage the proposed conversion process to the new *Quick* Modules 5.0 platform.

3.1.7. Vendors should provide references and project summaries to support the experience and knowledge in the areas listed above. Project summaries should include at a minimum the following:

3.1.7.1. Client organization
3.1.7.2. Project overview
3.1.7.3. Contract value
3.1.7.4. Start and end dates
3.1.7.5. Project status (in progress or complete, on/ahead/behind schedule, over/under budget)
3.1.7.6. Service provided
3.1.7.7. Primary deliverables
3.1.7.8. Technologies and platforms involved

Vendor Response:

Fairfax Imaging has provided the required five (5) references below with the above information for each reference.

3.1.8. Vendor's should provide project summaries, including the names, titles, email addresses, and telephone numbers of at least five (5) references to support the experience reported in this section.

Vendor Response:

Quick Modules is installed in over one hundred (100) locations worldwide. As indicated

throughout this Request for Proposal, Fairfax Imaging has successfully implemented numerous solutions of its award winning *Quick* Modules software and ImageTrac scanner platforms in similar environments as WV Tax. Below are but a few of these that WV Tax can contact as references.

1. Maine Revenue Services

Susan Smith
Deputy Director, Quality Assurance and Revenue Processing
51 Commerce Drive
Augusta ME 04330
Susan.T.Smith@maine.gov
207- 624-5618

Project Overview:

In 2010, Maine Revenue Services (MRS) selected Fairfax Imaging for a solution to address their needs for a document imaging, data capture, electronic deposit, and image retrieval system to replace their aging and outdated IBM IFP system. MRS is charged with the responsibility of administering all major tax programs that support the operation of Maine state government that include 49 tax types and 132 unique forms. The system consisting of Fairfax Imaging's highly acclaimed *Quick* Modules software included an innovative approach to the full range of workflow processing including mail handling, imaging, data recognition, electronic presentment, retrieval, workflow, and tracking. The system manages and reports on the flow of items from mail receipt to deposit and uploading of the taxpayer data for a fully integrated workflow system to ensure compliance and processing integrity. The system includes three (3) ImageTrac scanners.

In December 2014, Maine Revenue Services contracted with Fairfax Imaging to provide the implementation of *Quick* Modules 5.0 (QM 5.0) version of software. QM 5.0 represents the latest in technology advancement for tax remittance, imaging, and data capture. The implementation of QM 5.0 was performed without impact to the prior version of software platform (*Quick* Modules 3.).

Contract Value: The initial purchase contract value in 2010 was $1,699,240.

Start and end dates: June 2010 to March 2012; *Quick* Modules 5.0 upgrade from December 2014 to July 2016

Project Status: Completed

Service Provided: The services included project management, mail opening, design, engineering, software development, testing, training, hardware installation, and all IT functions necessary to implement a turnkey system.

Primary Deliverables: Deliverables including *Quick* Modules 5.0 software for

replacement of the *Quick* Modules 3.0 system, along with ImageTrac scanners. Fairfax Imaging providing all project related tasks including Project Management, configuration, implementation, testing of the project.

Technologies and platforms involved: *Quick* Modules 5.0, along with ImageTrac scanners and Agissar INFOPoll/INFOPointe mail tracking system.

2. New Jersey Division of Revenue

Gail P. del Castillo
Supervisor, IT
Revenue Processing Center
200 Woolverton Street
Trenton, NJ 08646
609-633-0158

Project Overview:
Fairfax Imaging implemented a tax return, report, and remittance processing platform to the Division of Revenue (DOR). DOR processes payments for 36 State Agencies including the Division of Taxation. The system included 8-IBML ImageTrac scanners along with Fairfax Imaging *Quick* Modules solution with Check21 for electronic deposit of checks. This system has deposited >$100M in a single day. Images captured on this system are also sent to the State's FileNet system for long term archiving.

Contract Value: The initial purchase contract value in 2011 was $1,987,878.

Start and end dates: April 2012 to February 2015

Project Status: Completed

Service Provided: The services included project management, mail opening, design, engineering, software development, testing, training, hardware installation, and all IT functions necessary to implement a turnkey system.

Primary Deliverables: Deliverables including *Quick* Modules software along with ImageTrac scanners. Fairfax Imaging providing all project related tasks including Project Management, configuration, implementation, testing of the project.

Technologies and platforms involved: The system was developed using the Fairfax Imaging *Quick* Modules software which provided the main document processing, character capture and remittance processing functionality. The scanning and document processing is done on ImageTrac scanners.

3. Oklahoma Tax Commission

Fredda Puckett
Director, Central Processing Division
2501 N. Lincoln Blvd.
Oklahoma City, OK 73194
(405) 521-3176
fpuckett@tax.ok.gov

Project Overview:
As a long term client of Fairfax Imaging, Oklahoma Tax Commission initially implemented our *Quick* Modules 3.0 system for tax processing including personal, corporate, and business tax types. Their operation included two ImageTrac scanners along with a traditional (paper) deposit process. In January 2015, Oklahoma Tax Commission set about to modernize their tax remittance operation. They contracted with Fairfax Imaging for implementing *Quick* Modules 5.0, along with installing two newer versions of the ImageTrac scanners. As part of this process they adopted electronic check deposit (Check 21) using the *Quick* Modules system.

Currently, Oklahoma Tax Commission has contracted with Fairfax Imaging to add Agissar INFOPoll/INFOPointe mail tracking system to the front end of the overall process to have a complete end to end operation that can be monitored from mail receipt to output.

Contract Value: Total contract value of all purchases is approximately $1,382,575.

Start and end dates: January 2015 to July 2016

Project Status: The *Quick* Modules 5.0 implementation is completed; currently Fairfax Imaging is implementing the Agissar INFOPoll/INFOPointe mail tracking system.

Service Provided: The services included project management, mail opening, design, engineering, software development, testing, training, hardware installation, and all IT functions necessary to implement a turnkey system.

Primary Deliverables: Deliverables including *Quick* Modules 5.0 software for replacement of the *Quick* Modules 3.0 system, along with ImageTrac scanners. Fairfax Imaging providing all project related tasks including Project Management, configuration, implementation, testing of the project.

Technologies and platforms involved: *Quick* Modules 5.0, along with ImageTrac scanners and Agissar INFOPoll/INFOPointe mail tracking system.

4. Colorado Department of Personnel and Administration (Performs all processing for Colorado Department of Revenue)

William Taylor
Division Director
1001 E. 62nd Ave., A-31
Denver, CO 80216
303-866-3882
William.taylor@state.co.us

Project Overview:
Fairfax Imaging was contracted to provide forms processing, document management, and remittance processing services to DPA. This is a state wide contract and every state agency is required to use DPA as their service provider. Their largest account is the Department of Revenue where they process over thirty different tax types including personal, corporate, excise and sales tax all on the Fairfax Imaging *Quick* Modules system. In addition to *Quick* Modules they use two ImageTrac 6400 and a single ImageTrac DS1150 scanners as well as Agissar INFOPoll/INFOPointe mail tracking solution all integrated to the *Quick* Modules system.

Contract Value: $2,944,789

Starts and end dates: June 2013 to January 2015

Project Status: Completed

Service Provided: The services included project management, mail opening, design, engineering, software development, testing, training, hardware installation, and all IT functions necessary to implement a turnkey system.

Primary Deliverables: The deliverables were a turnkey system that would provide CO DOR with the necessary functionality to process all taxes and revenues through their front end processing. This include all of the life cycle documentation, training, testing, software development, user level copies of code and project support for five years after the system has been put into production. We have received numerous requests for enhancements and customizations since the system was implemented.

Technologies and platforms involved: The system was developed using the Fairfax Imaging *Quick* Modules software which provided the main document processing, character capture and remittance processing functionality. The mail opening is performed by the Agissar mail opening equipment. The main scanning and document processing is done on two ibml 6400 scanners and an ibml 1150 off site.

5. Montana Department of Revenue

Bill Jarocki
Director of Project Management
340 Last Chance Gulch
Helena, MT 58620
406-444-1573
Bjarocki@mt.gov

Project Overview:
The System involved a fully turnkey development and implementation of a front end processing system. The system processes all taxes and fees for Montana and interfaces with the FAST Enterprises, GenTax system. Fairfax Imaging provided two (2 high-speed scanners capable of handling forms and checks, along with providing *Quick* Modules software. Fairfax Imaging implemented its total solution offering of *Quick* Modules to enhance the forms processing, image processing, and check processing to improve productivity and efficiencies. The system is deployed with Check 21 electronic deposit capabilities as well as W2 form recognition.

Contract Value: Approximately $1,529,000.

Start and end dates: February 2010 to December 2011.

Project Status: Completed

Service Provided: Fairfax imaging was the Prime Vendor and supplied ImageTrac scanners, Opex scanners as well as *Quick* Modules software.

Primary Deliverables: Primary deliverables included *Quick* Modules software, including Check 21, ImageTrac along with Professional Services for the configuration, implementation, testing, Project Management and support of the system.

Technologies and platforms involved: *Quick* Modules and ImageTrac scanners

3.2. Proposed Project Staff

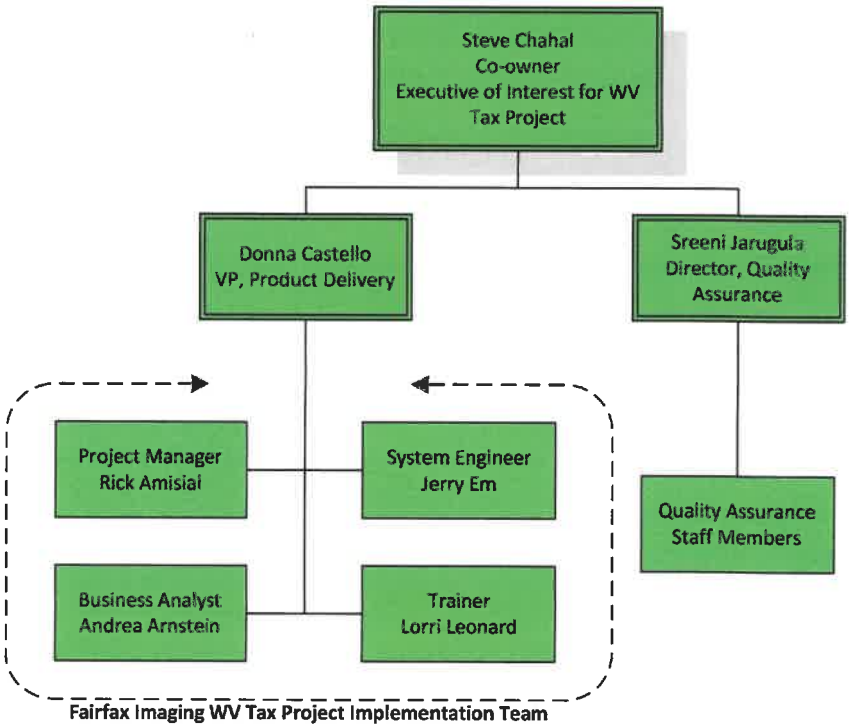
Vendor should propose a project team organization for the management and execution of the work outlined in the proposal. Please include a proposed project organization chart.

Vendor Response:

Fairfax Imaging has identified an experienced team of professionals which offer the qualifications and skills to implement the proposed system. Led by our Project Manager, Rick Amisial, the team assembled by Fairfax Imaging has successfully deployed several similar solutions to the one being proposed for WV Tax.

The following provides an organization chart and reporting structure for the key Fairfax Imaging Project Team Members responsible for the project oversight. This also represents the escalation path from the assigned Fairfax Imaging Project Manager to the assigned VP, of Product Delivery and Executive Management responsible for complete customer satisfaction.

As part of Fairfax Imaging's continued commitment to excellence, each client project is assigned an Executive of Interest. Steve Chahal, Co-owner, and Co-founder of Fairfax Imaging will be WV Tax's Executive of Interest providing executive oversight to the Project.



The project team will be made up of a Project Manager, a Business Analyst, and Engineers who will be assigned specific tasks and a Trainer. The Project Manager will be responsible for the overall direction of the project and will be the single point of contact for interfacing with the WV Tax Project team. The Project Manager will be (1) providing the overall direction of the Fairfax Imaging resources, (2) empowered to make decisions to keep the project on schedule, (3) provide status reports and updated Project Plan throughout the project, (4) provide all life cycle documentation, and (5) make resource adjustments to best support the overall direction of the project.

The Fairfax Business Analyst will be responsible for gathering the requirements through JAD sessions and other means to produce the detail design document.

The Fairfax Engineer(s) will be responsible for software installation and configuring the system based on the user requirements and the design document and creating any required user exits.

The Fairfax Trainer will be responsible for developing all of the training material and conducting the actual training on-site. The training material and content will be developed with the input from WV Tax users and the project team.

In addition to the above team of individuals, Fairfax Imaging's Quality Assurance group will be responsible for unit and system testing prior to delivery to WV Tax. Fairfax Imaging recognizes the importance of quality software deliverables and therefore has a dedicated group assigned to the tasks of testing. The testing process for the project will be oversighted by Mr. Sreeni Jarugula, Director of Quality Assurance and will be conducted by one or more members of our Fairfax Imaging QA team. This team is located within our headquarters in Tampa, Florida and will work closely with the Fairfax Imaging WV Tax Project Team for ensuring a high quality of deliverables to WV Tax.

Our project staff will work with the WV Tax project team during all phases of the project, including the planning, design, development, initial testing, system acceptance period, training, and implementation phases of the project.

Resumes should be provided for all key staff and must include name, education, training, technical experience, functional experience, specific dates and names of employers, relevant and related experience, past and present projects with dates and responsibilities, and any applicable certifications.

Vendor Response:

The following pages highlight the experience and technical abilities of the key Fairfax Imaging WV Tax Project Team members.

Rick Amisial

Mr. Amisial will serve as the Project Manager on the WV Tax Team. He is an action-oriented and results-focused professional offering experience in delivering remittance and forms processing solutions.

- Customer focused Analyst with 8+ years of combined experience in corporate and business performance management application architecture with a background in application development and integration.
- Expert at using analytical abilities to create solutions to customer requirements, partnering with clients to implement best practices
- Proven track record of successfully delivering client engagements across different industries
- Strong written and verbal communications skills
- Bachelor Degree in Business Management
- Practitioner Certificate Program in Business Analysis

Industry Experience
- ✓ *Tax and Revenue Department*
- ✓ *Remittance Processing*

Specialization
- ✓ *8+ years' experience in Project Management*
- ✓ *Microsoft Office Word, Excel, Access, Power Point, Visio, Project, SQL Server, Business Objects, HP Quality Center, and Share Point*

Project Experience:

- Maine Revenue Services
  As a Project Manager, Mr. Amisial guided the implementation of *Quick* Modules 5.0 at the Maine Revenue Services for the implementation of all tax form types including remittance and electronic deposit process. As part of his duties he supported the management of the complete lifecycle of the customer project.

- Rhode Island Department of Revenue
  As a Project Manager, Mr. Amisial guided the implementation of *Quick* Modules 5.0 at the Rhode Island Department of Revenue for the implementation of all tax form types including remittance and electronic deposit process. He provided direction through requirements gathering, technical feasibility, and analysis to ensure that all planning work is completed correctly and accurately.

- Rhode Island Blue Cross/Blue Shield
  As a Project Manager, Mr. Amisial guided the implementation of *Quick* Modules 5.0 at the Rhode Island BCBS for the implementation of all remittance form types including electronic deposit process. Interacting with Technical and Business stakeholders to perform analysis of business requirements and performing project completion assessment including customer feedback, lessons learned and financial, /performance review.

Other Experience:

- Project Coordinator for Citigroup, developing test plans, schedules, test scripts and execution strategies to meet testing requirements and objectives. Provided tier 1 application support for troubleshooting jobs relating to production systems by assessing issues raised, working through solutions, and testing and implementing into production.

- Project Analyst for the Anti-Money Laundering Dept. team at Consultant, analyzing business and functional requirements to streamline testing activities for the anti-money laundering department. Lead a team of 8 QA Analysts for the migration of Transaction Monitoring legacy infrastructures to Mantas and Actimize (current industry standard infrastructures). Created Traceability Matrix using BRD & FRD to ensure accurate requirements mapping and completeness of test scripts created.

- Project Coordinator for Syniverse Technologies, facilitated Data Clearing House Implementation and ensured bilateral network infrastructure connectivity with the customer and the roaming partner to setup testing. Created test plan, scheduled testing with the customer, the roaming partner and Syniverse testing engineers.

- Systems Analyst for T-Mobile USA participated with Enterprise IT and Project Teams to perform impact assessments on systems developments, enhancements, and launch efforts. Defined requirements through interviews, JAD sessions, business process description, and task and workflow analysis. Defined production support processes and drafted necessary support documents for projects handoff

Andrea Arnstein

Ms. Arnstein will serve on the WV Tax Team as the Business Analyst. In this role, she will provide technical guidance to the configuration of *Quick* Modules for forms and business rules.

- Experience in information management specializing in document imaging, information management, work flow and business process improvements
- Advanced abilities in system design, business process analysis, project management, and client consultation.
- Proven track record of successfully delivering client engagements across different industries
- Bachelor of Science in Industrial Engineering

Industry Experience
- ✓ *Tax and Revenue Department*
- ✓ *Remittance Processing*

Technical Specialization
- ✓ *Systems analysis and design*
- ✓ *Electronic Content Management and Document Imaging*
- ✓ *SQL, VBA, CSS, HTML and Java, Adobe InDesign*

Project Experience:

- Connecticut Department of Revenue Deposit Remittance and Imaging Solution
  As a team member to this State Revenue agency implementation, Ms. Arnstein provided technical guidance to the implementation of the *Quick* Modules remittance and forms processing solution, including Check 21.

- Delaware Department of Revenue
  As team member for the project, Ms. Arnstein worked closely with the customer project team to provide modernization of tax data capture and remittance system.

- Rhode Island Department of Revenue
  As a team member to this Rhode Island Department of Revenue, Division of Taxation, Integrated Tax System project, Ms. Arnstein developed and maintained a full featured remittance and forms processing solution.

- Blue Cross Blue Shield of Rhode Island
  Ms. Arnstein is part of the team implementing *Quick* Modules 5.0 as a replacement to the prior *Quick* Modules 3.0 system.

Other Experience:

- Project team member for Raytheon Corporation for Material Handling project including analysis of process and defects to effectively improving efficiencies in the operation by an estimated 40%.

Jerry H. Em

Mr. Em will serve as the Senior System Engineer for the WV Tax project. In this role, he will provide technical guidance to the configuration of *Quick* Modules as well as interfacing to legacy systems.

- 10+ years of professional experience in technology, managing and supporting large software projects.
- Experienced In System Integration and Software Design and Development.
- Expert in Web-Based, Thin-Client Software Design and Development.
- Proficient in Programming Languages Including Various Scripting Languages.
- Experienced in information capture and remittance solutions
- Strong written and verbal communications skills
- Master Degree in Computer Science
- Bachelor of Electrical Engineering

Industry Experience

- ✓ *SaaS*
- ✓ *Fee Collection On Line*
- ✓ *Remittance Processing*
- ✓ *Tax and Revenue*
- ✓ *Mobile Web*
- ✓ *Mobile Capture*

Technical Specialization

- ✓ *15+ years of software development experience*
- ✓ *Quick Modules*
- ✓ *.NET framework, C# and ASP .NET*
- ✓ *HTML5 Expert*
- ✓ *Web based applications*
- ✓ *SQL Database Development*

Project Experience:

- As a longtime Fairfax Imaging System Engineer Mr. Em has been instrumental in the implementation of numerous State Revenue agency projects. In each of these roles, Mr. Em led the software configuration and development activities for delivery of the *Quick* Modules system. Mr. Em's project experience includes being a team member on the following projects:
  - New Jersey Department of Revenue
  - West Virginia State Treasurer's Office
  - Georgia Department of Revenue
  - Montana Department of Revenue
  - Louisiana Department of Revenue
  - Maryland Department of Revenue

Other Experience:

- Developed the interface module between the *Quick* Modules System and FileNet.
- Developed Web-Based Document Management System: storage, routing and revision control for documents.
- Developed Database Applications for Image and Document Retrieval.

Lorri Leonard

Ms. Leonard will serve on the WV Tax Team in the role of Trainer during the project. Ms. Leonard has excellent oral and written communication skills and has provided training to Fairfax Imaging clients in government as well as commercial sectors.

- 10 years of professional experience in technology, project go-live support, and training.
- Proven track record of successfully delivering client engagements across different industries
- Experienced in information capture, point of sale and payment solutions
- Bachelor of Science in Business Administration

Industry Experience
- ✓ *Tax and Revenue Department*
- ✓ *Remittance Processing*
- ✓ *Point of Sale*

Technical Specialization
- ✓ *11 years of financial software implementation experience*
- ✓ *One-on-one and classroom Training*
- ✓ *Quick Modules*

Project Experience:

- City of Philadelphia
  Provided on-site user and administrative training for *Quick* Modules remittance system as in order to be compliant with requirements and ensure fully trained staff prior to UAT and production.

- Saskatchewan Integrated Tax Processing
  As a team member to this agency implementation, Ms. Leonard provided training for the *Quick* Modules remittance processing solution.

Other Experience:

- POS and TCR Consultant, MacLaren Consulting Group, go-live support, implementation, and training for new POS systems.

- DMS Installer and Trainer, DEALERTRACK, go-live support, implementation, classroom training, virtual training, and one-on-one training.

- Regional Operations Trainer, BB&T Bank

- Retail Training Specialist, Regions Financial Corporation

3.3. Competitive Position

Each Vendor should provide an explanation of what puts their company at a competitive advantage, including:

3.3.1. Vendor should describe the unique features of the product/service that differentiates the bidder from the competition.

Vendor Response:

Throughout our history, Fairfax Imaging has been recognized as an industry leader through adoption and implementation of new technologies and incorporating these as part of our solutions. Beginning in 1995, Fairfax Imaging was one of the first organizations to incorporate remittance processing into one seamless solution which enables our customers to process both documents and payment items in a common workflow with a single product.

There are numerous features of our proposed solution which differentiate Fairfax Imaging from our competition. Our experience in tax processing is unmatched and our proposed *Quick* Modules solution will allow the WV Tax to take advantage of leading technologies designed exclusively for revenue agencies including:

- Industry leading ImageTrac 6400 scanning platform.

The ImageTrac 6400 is offered as the front end scanning and capture solution to the proposed system. This scanning platform provides many benefits and features not found in competitive scanners. A subset of these includes:

  - Configurable software platform using SoftTrac Capture Suite
  - Graphical, menu driven user interface that offers touch screen approach to all activities
  - Ability to migrate the existing WV Tax scanning parm files to the new platform.
  - Common software and development environment as used by WV Tax personnel today to reduce risk and simplify the training on the new system
  - Intelligent Check Recognition and out sorting
  - Intelligent Barcode recognition for form identification
  - Highest industry quality of color imaging
  - High capacity autofeeder
  - Automatic skew detection and correction
  - Intelligent document locator number generation for each transaction scanned
  - The industries widest array of form sizes and weights
  - High speed capture – 429 pieces of paper per minute at 200 DPI.

- Common software platform that can process all form types.

Fairfax Imaging provides one solution under one common workflow, *Quick* Modules 5.0. Fairfax Imaging is the only vendor who designed our software from the ground up to process both full page and remittance processing under one common workflow. All of our software has been developed in-house by our technical teams and by our own staff. This is ideal for the WV Tax processing environment. Our competitors started out as either a full-page or a remittance software solution provider and then later added on the full page image processing or remittance processing solution to be competitive in the tax and revenue market. Several of our competitors obtain the add-on software component from third party, and sometimes, foreign suppliers. Experience has shown that this approach never fully achieves the desired integrated processing efficiency or systems integrity of the Fairfax Imaging *Quick* Modules software, for it creates islands of automation with a hybrid solution involving two different workflows and multiple databases.

- Experience in State Revenue operations and processing

Our presence in the market is much more than all of our competitors combined. Fairfax Imaging derives about 60% of our revenues from our state tax and revenue agencies and continues to develop solutions and applications that are specific to the business problems in this market. In addition to providing front-end imaging solutions, we are called upon to consult with the tax and revenue agencies to bring best practices to their tax processing environments.

- Interfacing with GenTax

We have interfaced with the FAST GenTax software and solution in several states and are very familiar working with FAST.

- Unlimited user software licensing

From the inception of the implementation, Fairfax Imaging is providing a worry-free, unlimited, site-wide license to the *Quick* Modules user interface software components that make up our remittance and full-page solution. This will allow the WV Tax to increase the capacity of the system without incurring additional software costs on the *Quick* Modules system in the future.

- One time license for unlimited volume

Unlike our competitors, we **never** charge for licenses based upon the number of documents scanned, the number of characters recognized or the volume processed through the system. From the very first day of production, WV Tax will have the full, unthrottled use of our software and recognition engines.

- Transaction and batch processing

The QM 5.0 software product allows our clients to process in a transaction mode to ensure individual items related to a taxpayer that may be an exception does not hold up the remaining items within in a batch for processing. This allows QM 5.0 users improved efficiencies in the manner in which the items are processed and speeds the deposit and capture process over traditional batch methods.

- Single vendor support

Fairfax Imaging owns the rights to ALL the software proposed, and this gives us a unique opportunity to customize it to meet our client's needs and requirements. Furthermore, we have always empowered our program managers to make decisions on the spot and have trained them to be our client's best advocate, thereby making custom decisions rest in the hand of the program manager, as opposed to a third party vendor or manager overseas. We find this method to yield a better solution, a system that is adapted best to the client's environment, and is most responsive to the client's needs and requirements. As the sole owner and provider of the *Quick* Modules software we are able to offer the most competitive pricing, since we are not bound by outside royalty fees.

- Consolidated reporting and dashboard monitoring

QM 5.0 provides a graphical dashboard of the operation from scanning to data capture as a whole rather than individually by component or process within *Quick* Modules. This will provide the WV Tax with the ability to manage the workflow of the system to ensure compliance with processing deadlines, identify bottlenecks in the system, perform audit/tracking of items received, and consolidate reporting.

- Virtual Batching

Quick Modules allows WV Tax to reduce up-front sorting required, thus speeding up the mailroom operations. It also provides intermixed scanning of all form types into a single common workflow because both coupons/checks and full page documents are processed at the same time.

- Thin client user interface

Because no *Quick* Modules software resides on the workstation, thin-client application for keying provides the ability to distribute the work beyond the central location via the internet and simplifies support.

- Electronic Check Presentment (Check 21)

Processes specifically designed for check deposit including automated means of reporting, quality checking and handling of exceptions, and electronic presentment of checks to the bank for automated deposit are integral to the power of the Check 21 module from Fairfax Imaging.

- Configurable set of business rules and math blocks

Designed to address the unique requirements of tax processing operation, the QM 5.0 product provides a library of configurable business rules to be stored and used across all forms and/or fields captured without writing custom code routines. Furthermore, the system is designed to perform math blocks calculations of the tax return data for verification purposes. This unique feature of QM 5.0 sets it apart from other software products.

Fairfax Imaging utilizes a full project development approach that includes business process improvement of the current WV Tax environment. *Quick* Modules provides productivity gains in the processing of taxes by incorporating business rules into the workflow, quality assurance processes, and higher quality of information that will improve taxpayer satisfaction.

- Certified for integration with ibml ImageTrac scanners

Fairfax Imaging is the largest ibml ImageTrac scanner reseller. As such our QM 5.0 is certified for operation with the ImageTrac family of products to ensure a seamless integration of the scanning platform with the QM 5.0 system.

- Comprehensive recognition technologies

The QM 5.0 system is supplied with the full range of recognition classifiers to provide WV Tax the ability to read OCR (machine print), ICR (handprint), OMR (mark sense), BCR (barcode including 1D, 2D and QR), as well as CAR/LAR (Courtesy Amount Recognition and Legal Amount Recognition) from checks. The recognition capabilities of the system are not limited by volume, or characters read.

3.3.2. Vendor should describe all new features and functionality introduced during the last eighteen months.

Vendor Response:

Fairfax Imaging has consistently invested into its product line throughout its history in order to maintain our leadership position. These new features and functionality included an investment into a new and innovative product line of *Quick* Modules which was announced in early 2013. *Quick* Modules 5.0 (QM 5.) is Fairfax Imaging's latest product offering. QM 5.0 incorporates over 20 years of experience and client requirements into an innovative product platform for the purposes of form, remittance, and imaging.

Since QM 5.0's announcement to the market, Fairfax Imaging has consistently added new features and functionality to the core software based upon client and industry market requirements.

Fairfax Imaging provides ongoing research and development activities to ensure our continued product leadership position. In 2014, Fairfax Imaging spent 4.5% of its total revenue on research and development. In 2015, Fairfax Imaging spent 6.6% of its total revenue on research and

development and in 2016 the Company invested 6.9% of its total revenue into continued enhancements and product development activities.

The new features and functionality introduced in the last eighteen months included:

1. Allow to insert virtual coupons in both *Quick* Key and *Quick* Review for check only processing.
2. Auto logout after predefined period of time for all UI apps within QM 5.0.
3. Allow splitting of a document in *Quick* Review (front and back images become separate documents). Also allow joining 2 documents each consisting of a single image into a single document.
4. In *Quick* Review added support for check scanners supported by Ranger in order to provide a wide array of scanner options.
5. Added monitoring of mail room (Agissar – INFOPoll) to *Quick* Dashboard, this providing an end to end monitoring of the entire workflow from mail room, scanning, data capture to output.
6. FreeForm
7. Added scanline roping of OCR within *Quick* Key to assist in recapturing of scanlines to reduce key entry tasks within *Quick* Key.
8. System encryption for data at rest and in transit.

3.3.3. Vendor should describe any new features and functionality announced for the next release and the expected release date.

Vendor Response:

Fairfax Imaging has consistently provided new features to our QM 5.0 clients through branch level releases. Currently Fairfax Imaging is deploying QM 5.0 Branch Release Level 5 of the software platform. We are in the initial planning stages of deciding what new features to include in Branch Release Level 6. Although we have not completed this review, the listing of potential new features consists of two areas of focus.

The first is to provide enhancements which continue to improve the ease at which the configuration and deployment of the system is accomplished. As a premier solution provider, Fairfax Imaging consistently reviews its methods of deployment in attempt to shorten implementation cycles to our clients allowing them to enjoy the benefits of the system as quickly as possible from time of ordering. Furthermore as more and more of our clients are conducting their own development and support activities of the system, these efforts will allow our clients to serve themselves more easily without needing to rely on Fairfax Imaging. The second groups of potential features to be included are enhancements identified by our client base.

The following are the potential new features and functions for the next release. No release date has been determined at this time. It should be noted that as a paying support client, WV Tax will be entitled and receive any future release of the QM 5.0 software including any branch release

level. Should Fairfax Imaging release a new branch level release during the implementation cycle for WV Tax, we will update the WV Tax system at no charge.

- Allowing Printing from user interfaces such as *Quick* Key and *Quick* Review
- Improve the field ordering UI
- Create a workflow snapshot for testing purposes
- QMS to allow check for permissions of a given user (Configuration Manager – Report)
- Ability to change the default queue in drop down box in *Quick* Key when logging into *Quick* Key.
- Sorting and grouping of forms fields and rules
- Customized rule names
- Conditional values applied in QMS

3.3.4. Vendor should explain how enhancements/release components are prioritized.

Vendor Response:

As an industry leader, Fairfax Imaging participates in many industry groups which offer discussion on trends and future needs of industry. These include:

- Federal Tax Administrators Conference (FTA)
- North Eastern Tax Association (NESTOA)
- Midwestern States Association of Tax Administrators (MSATA)
- Southeastern Association of Tax Administrators (SEATA)
- Western States Association of Tax Administrators (WSATA)
- National Association of County Collectors, Treasurers & Finance Officers
- Florida Association of Counties

In addition, Fairfax Imaging solicits feedback from its active client base for identified new features which can be effective in providing return on investment opportunities that improve our clients operations.

All requests which are received, whether internal from our own employees based upon their interaction with implementations and clients, industry trends noted through our active participation at industry trade organizations, or from client requests are captured within our internal R/T tracking system. Meetings are held (typically quarterly) where the engineering, marketing, sales, support, project, and executive management personnel attend to review the items noted for enhancements. At this meeting a thorough review of each request is made along with identification of use of each feature by one or more clients, the industry trends, or requirements that may drive the need to provide the enhancement as well as overall richness to the QM 5.0 product platform. Management then prioritizes each enhancement for inclusion in future branch releases for the product.

Today, Fairfax Imaging is implementing *Quick* Modules 5.0, Release Level 5. Since its introduction in early 2013 we have provided a branch release generally each year that includes new features as well as any bug fixes. All new releases of *Quick* Modules 5.0 are provided to the WV Tax as part of the support and maintenance fee. Customers are notified of upcoming releases in advance via email giving WV Tax time to review the release notes. Implementations of new releases are performed within the test environment of the system prior to deployment into production. Releases are designed to be installed by the client. Fairfax Imaging Support is always available to answer questions if needed at no charge.

Upgrade to Software is a new numbered release (for example *Quick* Modules version 3.0 to *Quick* Modules version 5.0) that contains a new version of the software licenses covered by the contract. This would include any enhancements to existing functionality along with new features that are part of the license. The maintenance contract entitles WV Tax to upgrades at no additional charge. If business rule changes are required to implement new features, Fairfax Imaging Support is available to assist.

An **Update to Software** occurs when software fixes or patches are made available to customers as an interim or branch release (for example *Quick* Modules version 5.4 to *Quick* Modules 5.5). These are typically bug fixes or minor enhancements to the software licensed by WV Tax. The Maintenance Agreement entitles WV Tax to updates at no additional charge. If business rule changes are required to implement new features, Fairfax Imaging Support is available to assist.

List project goals and objectives contained in Section 4, Subsection 4:

Section 4, Subsection 4.1:

4.1. Goal/Objective 1: FEWER SORTS /STREAMLINED DOCUMENT PREPARATION

The Departments desire is to find a solution that will provide a reduction in document sorting, document preparation and batching. Potential opportunities and improvements include reduction in the number of PO Boxes used for returns and remittances; Reduction in sorting, preparations and batching of work prior to capture; and elimination of separator sheets. Please describe how this goal will be attained.

4.1.1. Reduction in the number of PO Boxes used for returns and remittances

Vendor Response:

The proposed Fairfax Imaging *Quick* Modules 5.0 system provides virtual batching by routing work based upon form type into specific queues of similar form types. Using virtual batching will allow WV Tax to eliminate most if not all of the pre-scan sorting required with the old system. The cost of maintaining a unique post office box to provide an initial sort of different returns and remittances can be eliminated since it will no longer be required to separate the transaction types prior to scanning.

4.1.2. Reduction in sorting, preparation and batching of work prior to capture

Vendor Response:

The page document feeder on the ImageTrac 6400 scanner requires no presorting of documents. The feeder will process a wide array of intermixed sizes and weights of paper without the need to sort. Coupled with Fairfax Imaging's *Quick* Modules 5.0 system, the solution offered will provide virtual batching capabilities to allow electronic sorting of tax forms/types into different queues for ease of downstream processing. Work is scanned in the order it is received from the post office eliminating the requirement to sort work into tax types prior to scanning.

Preparation of the work before scanning will also be greatly reduced. Document preparation includes:

- Removing any foreign material from the items to be fed in the scanner. These items include staples paper clips, and rubber bands, etc.
- Repairing tears or other imperfections within the forms that may cause the system to jam. Original documents will be fed through the scanner.

4.1.3. Elimination of separator sheets

Vendor Response:

Separator sheets are not required. Identification of forms and transaction boundaries is done electronically after the documents are scanned.

Vendor Response: Section 4, Subsection 4.2:

4.2 Goal/Objective 2: IMPROVED DOCUMENT AND DATA RECOGNITION

The Departments desire is to improve document and data recognition. Please describe how this goal will be attained in the following areas:

4.2.1 Advanced forms and data recognition functionality are expected to provide improvements in the following functions:

Vendor Response

The combination of ImageTrac 6400 scanners and Fairfax Imaging's *Quick* Module 5.0 software will provide document and data recognition that is optimized for the unique recognition requirements of WV Tax. The ImageTrac 6400 provides the highest image quality of image capture of any high speed transport in the industry. Through enhanced optics and illumination capabilities, the ImageTrac 6400 provides the ability to image capture documents considered difficult for other similar transports. After providing the best quality image to work with, *Quick* Modules can then provide best possible recognition results.

4.2.2. Reduction in manual intervention and data entry

Vendor Response:

The *Quick* Enhance and *Quick* Capture modules reduce manual intervention by providing more accurate recognition results when compared to common recognition routines. Business rules are utilized to provide intelligence in each workflow step. Each field is recognized and validated based on the unique characteristics and business rules assigned to that field by WV Tax. With better, more accurate recognition coupled with automatic data validation, the need for manual intervention and data entry is reduced.

4.2.3. Improved utilization and recognition of Mark Sense, Barcodes and other aides for forms and data recognition and completion

Vendor Response:

Quick Capture performs Optical Mark Recognition (OMR) in an "intelligent manner." For instance, it is capable of discovering the following anomalies, and corrects them, or flags them with a high degree of accuracy and confidence:

- Mark Primarily out of the box

- Box circled

- Multiple choices checked at the same time (the engine will flag this case)

- Stray marks

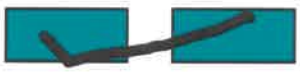


Figure 3 – Types of Mark Anomalies

Quick Capture also performs optical mark recognition to verify the presence of signature and to accept or reject based on business rules for signatures.

Quick Capture has adjustable thresholds for recognition. In fact, it reports back multiple candidates, all ranked by order of confidence. Not only do we utilize the first confidence value from the first choice of characters, but we also rely on the spread between the two first choices to determine how good a recognition we have obtained on the first choice. The higher the spread and the higher the confidence associated with the first choice result, the better the result.

The best form identification method is barcode recognition. Barcodes are used for forms identification and are read with the highest level of accuracy. Most major barcode formats are supported such as 2 of 5, 3 of 9, high density, 2-dimensional, or postal barcode.

Figure 4 – Sample Barcode

In addition to the above linear barcode, *Quick* Capture will automatically recognize and interpret two-dimensional barcodes in various sizes (i.e. 10 mil, 15 mil, etc.) as well as QR codes.

Figure 5 – Sample 2D Barcode

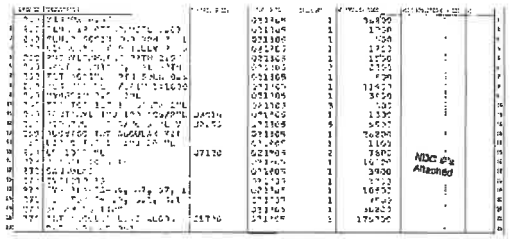
Figure 6 - Sample QR code

4.2.4. Expanded tolerance thresholds and improved recognition of hand print and data completion in pen and pencil and various color links

Vendor Response:

Through the use of Dynamic TIFF, the ImageTrac 6400 reliably captures images of all form types Instead of image quality being determined as an average from a batch of documents, individual documents are analyzed for maximum clarity and sharpness. Lightly printed documents with pencil and colored inks will be enhanced and made more readable by operator and recognition engine alike. The operational impact of this function is found in the elimination of any pre-scan sorting of light print from dark print returns.

Original



Traditional TIFF result

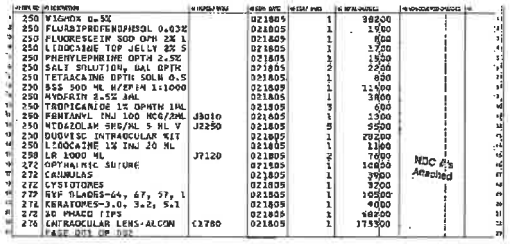


Image Quality with Dynamic TIFF

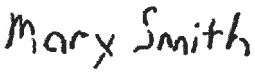
Figure 7 – ibml ImageTrac 6400 – Sample Image Quality

Quick Capture has been tuned to handle poor quality fields that are often encountered during

routine processing of forms. The following are examples of some of the image quality problems which do not significantly degrade the recognition process:

- Script Text

- Broken Text



- Smeared Text

- Dot Matrix

Figure 8 – Sample Image Quality Problems

4.2.5. Greater tolerance of print variations from the official form set. Variations include, but are not limited to, shifts in registration marks, shrink to fit printing and variations in barcodes

Vendor Response:

The proposed *Quick* Modules system provides a wide tolerance for print variations from the official form set. These variations are adapted through shifts in the registration marks which will then allow the system to still locate and read the field data, as well as variations in the barcodes produced, provided there is sufficient separation in the bars. For forms which are reduced in size during the printing process, the system will attempt to locate the data fields, however depending upon the amount of reduction it may be difficult to locate the data fields.

In addition to template based recognition, the *Quick* Module system also is configured with *Quick* Freeform. *Quick* Freeform provides an unstructured recognition technique to forms where key words and location of the data is used to determine form type and relevant fields to be read. Using *Quick* Freeform assists with the large variations of vendor produced forms often found in tax operations.

Section 4, Subsection 4.3:

4.3 Goal/Objective 3: ADVANCED SYSTEM FUNCTIONALITY

The Department wishes to maximize productivity in a replacement system. Please explain how your solution will accomplish this goal in the following:

4.3.1. Upgrade the existing Quick Modules 3.0 platform to latest Quick Modules software platform.

Vendor Response:

Quick Modules 5.0 represents the latest technology advances for automated data capture and validation provided by Fairfax Imaging. This latest version of *Quick* Modules offers several new features and improvements over the prior version. These include:

- Elimination of tokens that were required for version 3.0 *Quick* Module systems.
- The system is database oriented with all data elements stored in a SQL database. Images continue to be stored in a shared area with pointers to the image contained within the database.
- Graphical workflow monitoring of system activities using *Quick* Workflow Monitor. With optional dashboard plug-in, a user can monitor scanning activity and visually monitor the flow of work from scanning to output.
- Improved reporting capabilities to include auditing of who touched what in the system and the changes made by each operator.
- Transaction, as well as batch processing, is provided. The system easily accepts batch items from high speed input devices such as the ImageTrac scanner, but can process those individual transactions within the system. Thus, any exception items do not need to hold up the entire batch for processing.
- A common user interface is provided for all users of *Quick* Key and *Quick* Review. These modules are thin-client, web browser modules thus eliminating the need to load specific software onto each workstation.
- A common, configurable environment using *Quick* Modules Studio (QMS) is used allowing rules to be built and used across all applications, forms, and fields.
- Virtually no programming is required for the setup of applications. Through the use of QMS, validation routines, form definitions, and business rules can be set up and selected without writing code.

Quick Modules 3.0 relied heavily on user exits to supplement the version 3.0 core code, and perform the functions that are required to meet WV Tax business requirements. Given the current state of the *Quick* Modules 5.0 system, Fairfax Imaging anticipates that most of these user exits will not be needed in QM 5.0.

Upon completion of the implementation of *Quick* Modules 5.0, the below modules will be installed:

Product Description
Quick Modules 5.0 Licensed Software
Quick Module Server 5.0 Base Server
Quick Encryption
Quick Workflow Monitor for IBML
Quick IBMLInput
Quick Enhance
Quick Capture
Quick Freeform
Quick Key
Quick Research
Quick Review
Quick Output
Quick Reports
Quick Purge
Quick Check 21 File Generator
Quick Check 21 Communicator
Quick Check 21 Deposit Monitor
Development, Test and Production Environments

Table 1 - *Quick* Modules 5.0 Licenses

During implementation to *Quick* Modules 5.0, WV Tax can continue to use the current version 3.0 licenses, provided maintenance is continued to be paid. Upon completion and acceptance of QM 5.0 environment, version 3.0 licenses will be returned to Fairfax Imaging.

4.3.2. Provide a common, single software platform for all inbound tax/form types including remittance processing and Check 21; eliminating the need of multiple systems and environments.

Vendor Response:

Quick Modules will support all tax/form types including full size pages with no remittances, coupons and remittances, and full pages with remittances, as well as form only and check only transactions. All inbound tax forms and remittances are processed in a single *Quick* Modules system with a common workflow.

After transactions are scanned and processing is complete, check images are automatically prepared and queued for Check 21 deposit to the WV Tax bank of choice. Since checks are deposited electronically, the need for a second pass of checks through a check encoding transport is eliminated.

Section 4, Subsection 4.4:

4.4 Goal/Objective 4: AUTOMATION OF REMITTANCE PROCESSING AND BANK DEPOSIT

The Department desires to implement check 21 and automate the deposit process electronically. Please explain how your solution will accomplish this goal in the following:

4.4.1. The current remittance and bank deposit operations are labor intensive. The lack of automation prohibits WV TAX from taking advantage of Check 21 Image Cash Letters to accelerate funds availability and reduce depository fees. Please explain how your solution will meet the Agencies desired improvements in the following:

4.1.4.1. Eliminate intensive manual effort required for processing of checks and deposit preparation

Vendor Response:

The solution proposed to WV Tax incorporates electronic presentment of the payment items for deposit electronically without the need the extensive manual effort to encode and prepare deposits for U.S. based check items. Within the Fairfax Imaging solution the *Quick* Check 21 flow consists of three different modules. The first module controls which information is gathered from the database and generates the Check21 file, also known as an "X9.37" or "937" file. The second module transmits the Check21 files to WV Tax's bank, listens for acknowledgements from the bank, and updates the status of transmitted items. The third module provides Check21 reporting, the ability to fix rejected items and deal with any issues that may arise in the process.

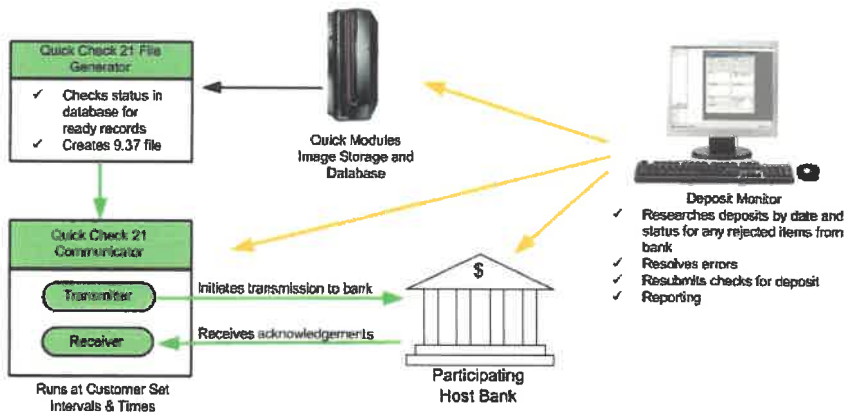


Figure 9 – Check 21 Process Flow

4.1.4.2. Provide functionality to employ and take advantage of latest bank depository functionality (Image Cash Letter)

Vendor Response:

The Check 21 process provides electronic deposit to as many deposit banks as is necessary to fulfill WV Tax's needs. The *Quick* Check 21 processing modules are designed to generate the proper "937" file structure, communicate with the depositing institution to make the deposit and perform resolution to any rejected items or other issues. Image Quality Assurance (IQA) is performed for each set of image records to ensure compliance to Federal Reserve standards for electronic deposits. This includes:

- An individual item must have corresponding front and back image segments.
- Each image segment must have a minimum resolution of 200 dpi.
- Each segment must be black and white and in the TIFF 6.0 CCITT Group 4 compression format.
- Missing/torn corners analysis is performed to determine if any of the document's four corners are either folded or missing.
- The document length is calculated by dividing the horizontal pixel count by the pixel density (dots per inch) to ensure it is within standard check length specifications.
- The document height is calculated by dividing the vertical pixel count by the pixel density (dots per inch) to ensure it is within standard check height specifications.
- Document skew is measured to determine that the image is of sufficient orientation and presentment.
- Pixel count is performed to ensure acceptable document image quality and noise ratios are achieved and that an image is not too dark for presentment.

***Quick* Check 21 File Generator**

The Check21 File Generation module runs as a service without any user intervention and is controlled by an XML configuration file. This configuration file can be edited to change the behavior of the service. The module can be set to query the *Quick* Module Check 21 database at whatever time and frequency required. By default, all checks that are currently ready to be processed are put into the Check21 937 file. If business rules require checks to be held for a specified reason, the module can accommodate those needs.

Once the range of data has been specified, all of the necessary information is pulled from the Check 21 database and a Check21 937 ICL (Image Cash Letter) file is created. All of the data that has been pulled is marked as "Processed" to ensure that it does not get sent twice. The *Quick* Modules Check 21 process also compares transactions against the database to ensure no duplicate items exist and perform other validations of the transactions (example no check can be for zero amount). Prior to transmission, any required inclusion of data such as check amount or endorsement can be annotated into the check image. The completed Check21 ICL file is then placed in a specific folder (WV Tax specified) to await transmission.

***Quick* Check 21 Communicator**

The communication portion of the Check 21 flow consists of two processes:

- **Transmitter**

The Check 21 transmitter will automatically send any files that have been processed during the day according to a configurable schedule. Files can be collected and sent to the bank all at once, or can be sent as multiple files throughout the day. The transmitter supports FTP w/ PGP encryption, SFTP, FTPS, and HTTPS transmission methods to ensure secure transmission of the data.

- **Receiver**

The Check 21 Receiver listens for acknowledgements from the bank to determine whether or not the file was accepted or rejected. The actual type of acknowledgement is defined by the bank and is usually either an email or a file that must be captured by the Check 21 receiver and interpreted. If a file is accepted with no errors then all of the checks that were contained within the accepted file are flagged as "Accepted" and are reported as such by the bank. All items that were not rejected are flagged as successful. Upon receiving notice through the acknowledgement process that any item was rejected by the bank, the Check 21 system will mark the rejected item(s) as such and adjust totals as necessary to match the bank's records. These rejected items are then resolved using the systems Deposit Monitor process.

***Quick* Check 21 Deposit Monitor**

Deposit Monitor is an operator task item within the workflow for the Check 21 process which provides reports on check aging (if checks are not immediately deposited), invalid checks, and the deposits sent through Check21. It also provides functionality to fix rejected items and to mark them for redeposit. Deposit Monitor tracks the deposits after they have been created. Any of the data tables shown in Deposit Monitor can be exported to a Comma Separated Value (CSV) file.

The operator is capable of viewing the following types of views for reporting/status:

- Daily and Weekly Summaries
  - Daily Summaries show all Deposits that were Transmitted, Accepted, Rejected, or Deposited Manually.
  - Weekly Summaries is similar to the Daily Summary except that it shows all Deposits Transmitted, Accepted, Rejected, or Deposit Manually for that week.
- Pending Deposits, Deposits by Date, Deposits by Account
  - Pending Deposits are defined as Deposits with status indicating Ready for Processing, In Processing, Held, Awaiting Transmission, and Transmitting. Searches for all Pending Deposits may be limited by a single date or date range.
  - Deposits by Date allow searches for all Deposits that have been Transmitted, Accepted, Rejected, or Deposited Manually on the selected date or date range.
  - Deposits by Account allow searches for Deposits that originated from selected Sites and were targeted at selected deposit accounts.
- Pending Items, Rejected Items, Aging Items, Invalid Items
  - Pending Items are defined as those with statuses that are Ready For Processing and Waiting on Backend.
  - Rejected Items are defined as having been rejected due to image quality analysis,

MICR, amount, and duplicates.

- Aging Items are defined as items that have been sitting in the system with a Waiting on Backend or Rejected status for more than one day.
    - Invalid Items are not the same as Rejected Items. These are items that fail due to some internal business rule supplied by WV Tax. These items never get deposited or processed but are reported upon for tracking and disposition

4.1.4.3. Provide opportunity to reduce deposit transportation expenses

Vendor Response:

The Check 21 process deposits checks electronically replacing the old deposit process. Physical checks are stored temporarily and then shredded after successful deposit per WV Tax's requirements. The expense associated with encoding, preparing deposit documentation, and the courier service to transport the checks to the bank for deposit is eliminated.

4.1.4.4. Provide opportunity to reduce depository fees

Vendor Response:

The Check 21 process will reduce the manual processes involved at the bank that receives your cash letters as the deposit process at the bank will also be electronic. The bank's cost of manually scanning, correcting errors, and balancing the paper cash letter is eliminated. As a result the depository fees charged by the bank can be greatly reduced.

4.1.4.5. Provide opportunity to accelerate funds availability

Vendor Response:

The Check 21 process will have the effect of making every check a "local check" allowing it to clear the bank same day or next day depending on when the actual deposit is received by the bank. By comparison, paper checks can take 3 to 5 days to clear depending on the banks clearing process. Check 21 will allow the bank to accelerate collections and release funds to WV Tax in a more timely manner.

Section 4, Subsection 4.5:

4.5 Goal/Objective *5:* FEATURES AND FUNCTIONALITY

The Department desires to update features and functionality to enable more web based access and more report functions and ability to process returns with minimal user intervention. To have the functionality to make changes without interruption to the system, changing and creating new reports, changes in workflow. Please explain how your solution will accomplish this goal.

4.5.1. Provide a description of the proposed solution which outlines a common, single product platform which addresses the requirements of this RFP.

Vendor Response:

Fairfax Imaging's *Quick* Modules product is a highly successful and award winning forms and remittance solution. *Quick* Modules is the *only solution of its kind that has been designed from the ground-up to handle remittance as well as forms processing, all under a common workflow and feeding into a common database*. Our solution contains all the features of a high-volume, high-throughput remittance processing system, as well as the traditional data capture elements found in a forms processing system and offers a robust processing environment.

Quick Modules is designed to collect images from any centralized, remote, or external scanning device and process these as transactions intermixed. The integrated workflow moves these transactions through our solution expediting those transactions with remittances based upon queues within the system. The application of several recognition engines provides the best possible translation of image to data for both structured and unstructured forms. The validation and balancing step ensures the most accurate remittance processing possible for eventual electronic transmission to the bank via Check 21. Stringent and robust business rules are provided to clean the data captured from the wide variety of tax forms and transmit that data and images to the integrated tax systems.

The solution includes real-time monitoring and reporting of the system performance. Dashboard displays are provided to track the items throughout the workflow. The system provides high level views of the workflow to determine production gates and identify processing queues. Deposit reports and statistical reporting is a key feature of our solution. In addition, the Fairfax Imaging solution provides full capabilities to WV Tax to self-support the solution for both legislative changes and adjustments to the process.

Once the envelopes contents are opened and imaged using the ImageTrac 6400 as outlined within the proposed workflow, the items will be imported into the *Quick* Modules solution for processing.

Proposed Scanners

ImageTrac 6400

The ImageTrac family of scanners has become the standard for state revenue processing. As part of Fairfax Imaging implementations, ImageTrac scanners are utilized at Maine, Montana, New Hampshire, Oklahoma, Delaware, New Jersey, and Georgia as well as other locations throughout the country.

The ImageTrac 6400 provides duplex scanning (200 DPI) at up to 429 pages per minute based upon 8.5" x 11" documents. The ImageTrac 6400 class scanners also include features that make the most sophisticated jobs possible and easy to use, manage and maintain. The operator control center provides quick access to essential machine functions, simplifying the setup and processing of documents and increasing operator productivity. Because of their ease of use, a single person can operate multiple machines in certain applications.

A few of the many ImageTrac features include:

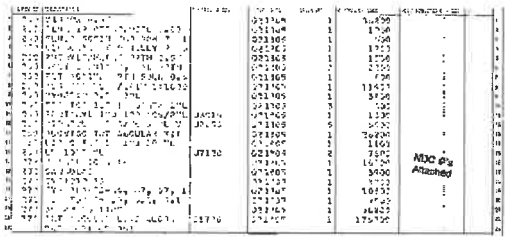
- Duplex camera imaging
- Mixed document scanning
- Bi-tonal, grayscale and color scanning
- Dynamic TIFF
- Ultrasonic doubles detection
- Multi-feed detection
- Mechanical document detection and de-skew
- User-friendly touch screen control
- Thick document detection
- Envelope detection
- Post-image ink jet printer
- Hardware MICR reader
- Three pockets with run-out bin
- Multiple image outputs available (color, grayscale and bitonal)
- SoftTrac Capture Suite Software, including Admin, Q/C and Analytics modules
- DocNetics® suite for check (E13B) recognition, and barcode recognition
- Image enhancement tool for automatic document optimization (Dynamic tiff)
- Software image and data clean up tool

Figure 10 – ibml ImageTrac 6400

Through the use of Dynamic TIFF, the ImageTrac 6400 reliably captures images of all form types Instead of image quality being determined as an average from a batch of documents, individual documents are analyzed for maximum clarity and sharpness. Lightly printed or "busy" documents will be enhanced and made more readable by operator and recognition engine alike. Additionally, through the use of SoftTrac and in combination with Dynamic TIFF the system will eliminate track stoppages caused by blue or black sided W2's.

Additionally, ImageTrac employs an image quality module called Dynamic TIFF. The ability to utilize Dynamic TIFF advanced image enhancement tools gives exceptional image quality to all documents, including light print forms. Re-scans caused by poor image quality are greatly reduced with the use of Dynamic TIFF. The operational impact of this function is found in the elimination of any pre-scan sorting of light print from dark print claims.

Original



Traditional TIFF result

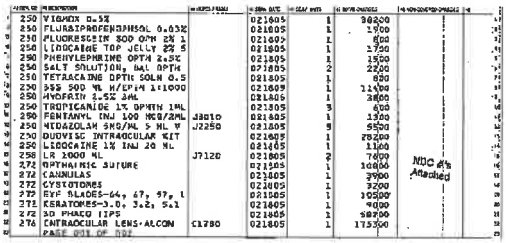


Image Quality with Dynamic TIFF

Figure 11 – ibml ImageTrac 6400 – Sample Image Quality

SoftTrac Capture Suite

Ibml's SoftTrac® Capture Suite makes it easy to define scanning and capture jobs. Users can create and deploy jobs without the need of sophisticated programming and thus maximizing the use of the ImageTrac family of scanners.

SoftTrac offers and attractive and intuitive user interface that promotes a positive user experience. Robust tools designed to allow users to configure and setup jobs are included along with a job setup wizard. Centralized management of job development and deployment allow SoftTrac jobs to be used throughout the enterprise on different ImageTrac scanners.

SoftTrac® Capture Suite enables ImageTrac® users to centralize hardware setup and information tracking, control and export as well as integrate other scanners into their capture environment. With the operational tools provided in SoftTrac Capture Suite, ibml users can more easily standardize their document scanning operations and the information they track.

Through this centralized control of scanning operations, ibml's SoftTrac Capture Suite delivers efficiencies and process improvements far greater than those provided by any other scanner software on the market. This makes SoftTrac Capture Suite an ideal choice for high-volume scanning operations. With its inline intelligent document capture capabilities, SoftTrac Capture Suite also stands apart in shared services and mailroom and enterprise scanning environments that use a rules- and actions-based approach to minimize downstream exceptions. SoftTrac Capture suite offers WV Tax:

- An attractive and intuitive user interface
- Easy-to use job configuration tools, including a Scan Job Setup wizard and Ink Jet Printer (IJP) setup interface
- Reporting
- Batch and user administration
- Dynamic software feeder controls for optimizing scanner throughput
- A tool for streamlining the configuration of TIFF images and settings
- Alerts which notify operators of document exceptions
- Centralized data storage for all devices
- The ability to scan into virtualized environments
- Single Windows log-in and authentication
- Built on .NET framework

Additionally, the ImageTrac 6400 is equipped with two recognition modules on the scanner transport to facilitate the needs of agencies such as WV Tax. These products are the DocNetics Checks-All Module and the DocNetics Barcode Module.

DocNetics Checks-All

DocNetics Checks-All uses a combination of technologies to determine if an item is a check or document, and which orientation it is traveling down the track. Once this is determined, it uses recognition of the E13B font to compare the characters in a bitmapped image of the MICR line to E13B font samplings. This process determines what each character represents in the check line and returns the numeric set. This solution provides the ability to capture the check line of a check in any orientation and does not require the check line to be printed using magnetic ink.

The ImageTrac is equipped with Top Side MICR (Magnetic Ink Character Recognition) reader. This hardware device captures information (check line) from checks that contain ink with magnetic properties. The reader works by using two different heads – one for charging the ink and the other for reading the characters.

The ImageTrac provides the versatility to use both the DocNetics Checks-All and hardware MICR reader technologies when scanned in the proper orientation, providing an average character read rate of 99% or greater of reading the E13B check line. The accuracy and consistency of the scan line read rate is attained by using both technologies and constructing a "best of" combination read of the check scan line. (This read rate may vary as it is dependent on the quality and continuity of the mix of checks and their characteristics).

- Recognition of checks regardless of prep and document orientation
- Automation of check out sorting
- Ability to provide a single platform for scanning full pages, vouchers and checks
- High MICR read rate with combination of hardware and software technology
- Reduce the number of employees needed for prep, pre and post scan, and encoding
- Reduce the number of indexers needed to classify documents
- Accelerate the indexing process
- Eliminate the cost of Pass-2 encoding by providing quality images for Check 21 electronic deposit.

DocNetics Barcode

DocNetics Barcode enables the read and decode of barcodes through an image as opposed to a traditional laser reader. The benefit from this technology is the highest possible read rates with the ability to read barcodes in any orientation from the front or rear of a document. This virtually eliminates the possibility of merged transactions. This gives the ImageTrac unparalleled inline bar code recognition read rates, in addition to further accelerating the indexing process.

- Recognize bar codes in any orientation, front or rear image which allows form orientation to maximize scanning speed and productivity
- Use bar code information to properly identify every page that has a unique bar code
- Eliminate the use of separator sheets
- Reduce the number of employees needed for prep, pre and post scan
- Reduce the number of indexers needed to classify documents
- Accelerate the indexing process
- This allows for the barcodes to be read and decisions to be made of barcodes which have been prepped wrong

Additional SoftTrac Capture Suite Modules

The proposed system is also designed with two add-on modules that operate independent from the scanning activity. SoftTrac Administration allows users to manage, develop, create, and edit scanner applications outside the scanning platform, thereby eliminating disruptions to the production scanners. With SoftTrac Scan's User Administration application, the process of creating, managing and editing multiple user and group profiles for job-access and data protection is simplified. Organizations can define rules for user access within applications based on an individual's or group's profile.

Additionally, the system is provided with SoftTrac Analytics. SoftTrac Analytics is reporting tool specific to the ImageTrac scanners which provides a holistic view of performance metrics to the capture process. Out of the box, this application provides scanning statistics by batch, operator or specific document as well as cumulative data. The reports can be stored locally or on a network. Additionally, a number of filtering options allow users to select what dates, scan jobs,

scanners, operators, and data connections are included in the reported data. Reports can be saved for future use, or they may be exported as PDF, Excel or HTML files.

Mail and Scanning Workflow Description

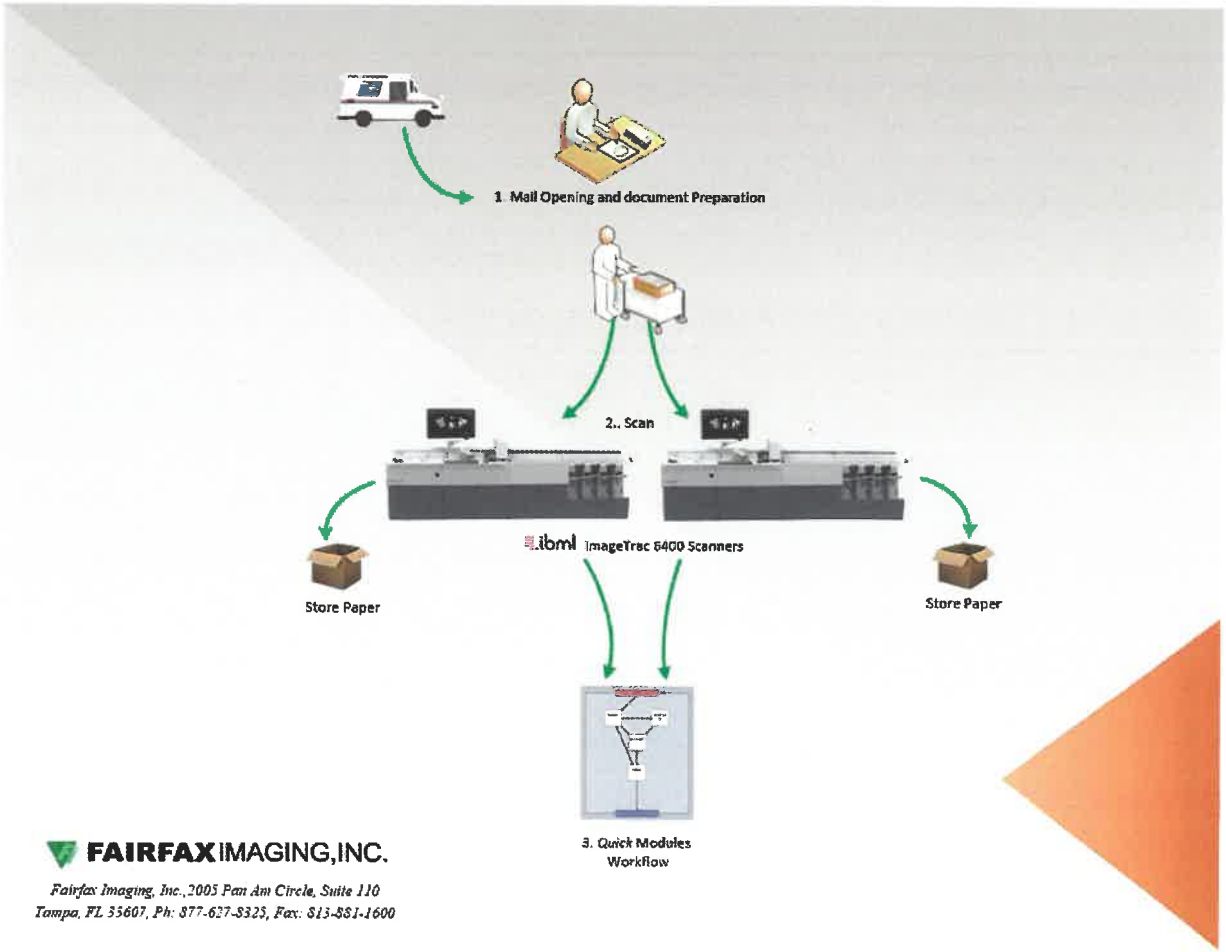


Figure 12 – Workflow Description

1. Mail Opening and Document Preparation

Mail will be received and opened using equipment and procedures similar to what is currently used. Since *Quick* Modules electronically sorts transactions with virtual batching, a reduced number of sorts can be performed to speed the mail preparation tasks. Mail sorts will be limited to sorting envelopes of like sizes or other sorts that will optimize the process of physically opening the envelope and extracting the contents.

While not required, many of our state revenue clients choose to sort returns with remittances from returns where there is no remittance. This allows remittance transactions to be scanned first.

Document Preparation

A limited amount of document preparation is required prior to scanning work on the ImageTrac 6400 scanners. Preparation prior to scanning includes removing staples and paper clips and repairing any large or obvious tears in the documents that could affect scanning. Documents are

ordered with tax forms and GenTax vouchers first followed by checks and remittances.

2. Scanning

Work is placed in a jogger and then loaded into the ImageTrac 6400 scanner. The scanner will automatically determine transaction boundaries as documents are scanned.

Transaction 1
a. Tax form identified by barcode, preprinted document ID, or unique form characteristic.
b. Correspondence
c. W-2s
d. Check

Transaction 2
Transaction 2 is determined because a tax form followed a check.
a. Tax form identified by barcode, preprinted document ID, or unique form characteristic.
b. W-2s
c. Check
d. Check

Transaction 3
Transaction 3 is determined because a GenTax Voucher followed a check.
a. A GenTax Voucher identified by barcode
b. Check

Transaction 4
Transaction 4 is determined because a tax form followed a check.
a. Tax form identified by barcode, preprinted document ID, or unique form characteristic.
b. Tax form identified by barcode, preprinted document ID, or unique form characteristic.
c. W-2s
d. Check

2. Transaction 5
Transaction 5 is determined a GenTax voucher followed a check.
a. A GenTax voucher identified by barcode
b. Check
c. Money Order

While not required, a physical transaction separator can be used such as an envelope or a separator sheet.

Each document is imprinted with an intelligent Document Locator Number and sorted to one of three stackers on the scanner. Since checks will be deposited electronically, and WV Tax will require a destruction cycle for the checks, these will be sorted to a separate pocket for ease of storage and retention. Batches can be removed from the stacker after scanning and stored in scan order.

The scanner will write batches of images and data into a Microsoft SQL database which will then be ingested into *Quick* Workflow automatically. Within the workflow, images are classified, fields are identified and recognized, transaction boundaries are verified, like transactions are grouped together, and transactions are validated and balanced per WV Tax unique business rules.

When complete, checks are deposited electronically via *Quick* Check 21 and tax data is output to the GenTax backend system. A complete description of each workflow step is described below.

Quick Modules Workflow

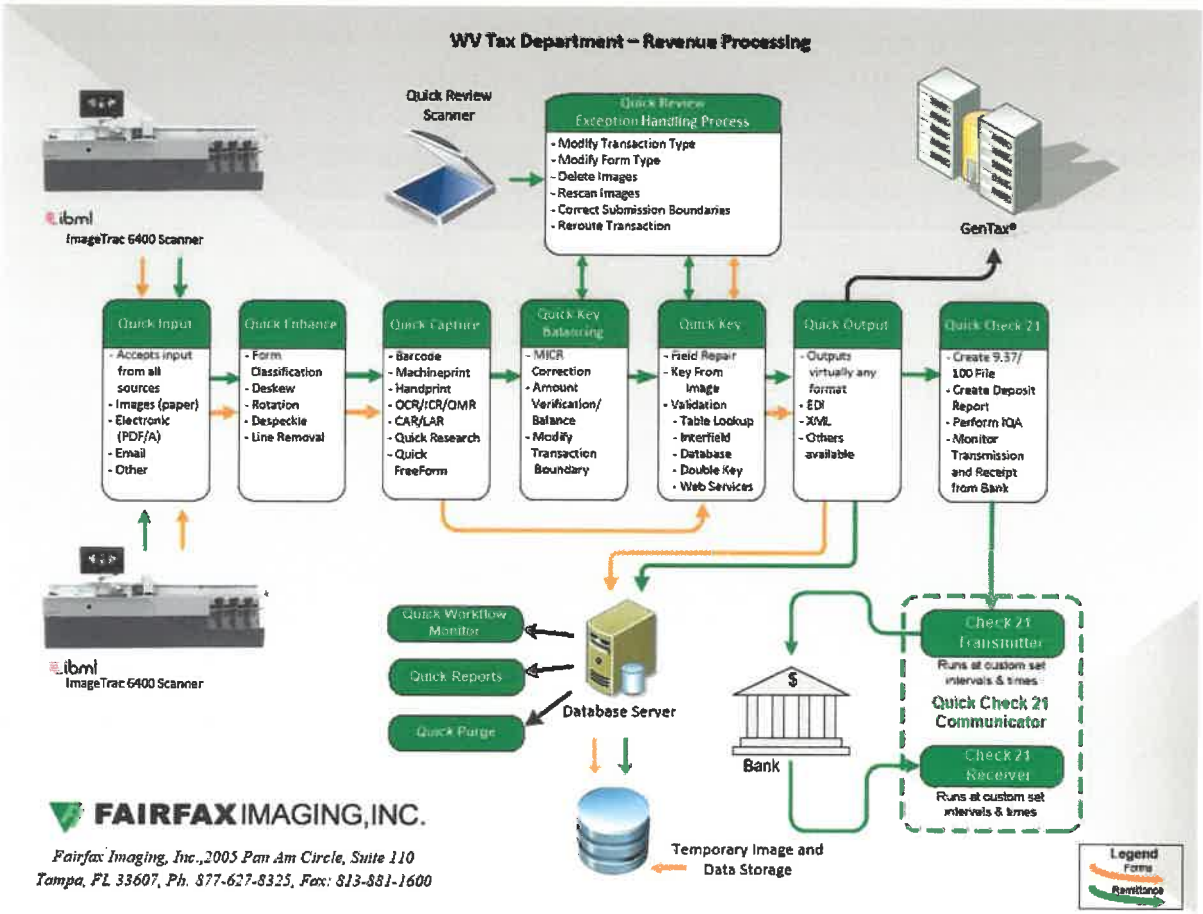


Figure 13 – *Quick* Modules Workflow

All modules as part of the *Quick* Modules solution operate as guided by our *Quick* Workflow that determines routing of work based upon selected business rules. Our workflow is composed of the following stages that, when interfaced together, will ensure that all WV Tax requirements are met:

- Image and data input and acceptance from the ImageTrac scanner (or any other in the future)
- Image enhancement and document identification/classification
- Batch integrity review and repair
- Automated check and data recognition for all forms, remittances
- Routing of images to appropriate work queues by similar types
- Balancing of transactions containing money with reconciliation
- Data validation and correction/entry of all form field data elements
- Electronic presentment of funds for depositing
- Image and data output to downstream systems

- Database population for tracking and reporting
- System reporting and workflow monitoring

One of the most attractive features of the *Quick* Modules solution is its modularity, redundancy, and fault tolerance. There are two types of modules that are utilized in our *Quick* Modules solution. The first is grouped into those modules that are workflow controlled. These consist of server modules that require no operator intervention and thus, run unattended. Operator attended modules such as *Quick* Key require operator tasks to be performed and thus, present themselves as graphical user interface modules designed to accommodate high performance entry and validation of data entry.

The modules used within the workflow are shown below:

Specific Area or Requirement	Modules	Process
Workflow	*Quick* Workflow	Unattended Server Process
Image Input from Scanner, Data File Import and Conversion	*Quick* Input	Unattended Server Process
Image Identification and Enhancement	*Quick* Enhance	Unattended Server Process
OCR, ICR, OMR, CAR, LAR, BCR - Structured and Semi-Structured	*Quick* Capture	Unattended Server Process
Unstructured recognition	*Quick* Freeform	Unattended Server Process
MICR Database	*Quick* Research	Operator Workstation
Item Balancing, Data Correction and Validation	*Quick* Key with Balance Function	Operator Workstation
Transaction Integrity Review and Repair	*Quick* Review	Operator Workstation
Check 21 File Generation and Deposit Monitor	*Quick* Check21	Unattended Server Process for all except Deposit Monitor which is an Operator Workstation
Output of Data Objects	*Quick* Output	Unattended Server Process

Table 2 -- In-Workflow Modules

In addition to the above in-workflow "real-time" modules, we also propose the following out-of-workflow tools or modules that will help WV Tax reap the benefits of the system. Each of these modules is used as needed in the operation, monitoring, or support of the *Quick* Modules system.

Specific Area or Requirement	Modules	Process
Management Reporting	*Quick* Reports	System User Tool
Supervisor of system activities and dashboard display	*Quick* Workflow Monitor	System User Tool

System configuration and setup	*Quick* Modules Studio (QMS)	System User Tool
Development, and Test Systems	*Quick* Modules Test Suite(s)	System User Tool
System Maintenance	*Quick* Purge	System User Tool

Table 3 -- Out-of-Workflow Modules

Quick Workflow can prioritize, schedule, and route work between the various system modules in the *Quick* Modules system and thus customize the workflow to the specific needs of WV Tax. This feature helps make our solution superior because it will allow WV Tax to prioritize work based on such important criteria as work type or dollar value to customize the workflow of the system to WV Tax's need. Our *Quick* Workflow based solution delivers the following distinguishing features and characteristics:

- **Push and Pull Technology:** Our system central workflow works in dual push/pull mode. It will bring to each queue the next available work item (push), displays them on the screen along with their respective priority levels, and lets the queue operator choose the work unit (pull).
- **High Performance:** WV Tax can schedule, prioritize, route, and dispatch Work Objects between processes and people as needed to become more efficient.
- **High Scalability:** As the needs of WV Tax grow, so does the need to add more horsepower by injecting additional modules into the workflow. For instance, WV Tax may need to add a new data capture queue. *Quick* Workflow allows Fairfax Imaging or WV Tax, to add queues to the system.
- **Robustness:** The tight integration of workflow technology into our imaging product speaks to the power of the solution that we provide.
- **Flexibility:** In a real-world scanning and remittance/forms processing solution, the need will arise where WV Tax would require changes in the priorities to accommodate changing business needs. *Quick* Workflow allows the user to make the change easily; and hence, all the new business rules will apply automatically to the remittance/forms processing solution.
- **Image annotation:** Any module can annotate a particular image within the batch. This note will remain with the image, and when the batch is routed to any other queue, the operator will be able to view the note as well as the image.
- **Elegance:** From a system design standpoint, *Quick* Workflow allows the connecting of the various modules together with a few mouse clicks. From the user standpoint, WV Tax will be able to dynamically change its priorities, routes, and schedules also with a few mouse clicks. There is no need to redesign the system for every change in the business process. WV Tax can create efficient work teams who can handle specific batch or transaction types easily and rapidly.
- **Redundancy:** *Quick* Workflow makes use of the Microsoft clustering technology to provide total redundancy and fault-tolerance.
- **Failsafe operation – Suitable server configuration for backup:** *Quick* Workflow as well as all the server modules (configured with replicated licenses) can be installed on two (2) different servers, so if one of the servers goes down for any reason, the second can continue working ensuring that the system continues to operate.

Quick Input

Quick Input is our input image and data acceptor. It runs on the server as an unattended service and as such does not require any operator interaction. *Quick* Input receives image files and data for input into the *Quick* Modules workflow. It constitutes an entry point into the *Quick* Modules workflow for the following data types:

- Scanned or imaged documents
- Electronically filed documents
- Bulk submitted documents
- Images of any standard format
- Electronically transferred images (FTP)

By design, *Quick* Input supports both centralized and decentralized scanning activities since files can be scanned virtually at any location. *Quick* Input is certified to operate with the ibml ImageTrac scanners and interfaces the scanners SQL database tables for picking up each batch (data and image) as they are flagged as completed by the ibml scanners. *Quick* Input will import the work into the *Quick* Modules system.

Quick Enhance

Quick Enhance identifies scanned or received documents from the ImageTrac scanners and performs several enhancement algorithms on the image to ensure optimum image quality prior to data recognition. This module runs in an unattended mode on the server without the need for operator interaction. *Quick* Enhance performs the following:

- **Image Improvement**
  The image improvement stage can automatically correct skewed images; perform horizontal and vertical registration; remove random noise, dot-shaded regions, and unwanted lines; and correct inverse text, as well as ensure compliance with banking image quality standards for image exchange.

- **Document Form Classification**
  Forms which are not identified during the scanning process, *Quick* Enhance performs the identification process in one of three ways using the following hierarchical method.

  1. The best form identification method is the barcode recognition method. Barcodes can be read with the highest level of accuracy. *Quick* Enhance utilizes its barcode recognition technology to automatically identify the image. *Quick* Enhance supports most major barcode formats such as 2 of 5, 3 of 9, high density, 2-dimensional, or postal barcode.

  2. If the form does not have an identifying barcode, or if the barcode recognition failed for any reason (torn or stained barcode, etc.), *Quick* Enhance will locate any set of distinguishing characters on the image and recognize those using OCR/ICR technology. These characters may be any readable information that clearly distinguishes the form from its peers.

  3. If all the above fails to identify the form, *Quick* Enhance will automatically default to

image processing and identification techniques by using morphological operations and form contents such as lines, boxes, and text.

Any image that fails automatic form identification (or was not identified at the time of scanning on the ibml) is automatically sent to the systems *Quick* Review module for form ID.

Once the forms are classified, and depending upon WV Tax's specific business rules the system can perform electronic grouping of similar/or like documents together. In doing so, the system can provide efficiencies in performing the subsequent steps in the workflow, namely the recognition process, operator balancing and validation steps. By grouping forms of similar form or tax type provides a common form type to the operator in order to assist them in the most efficient and judicious manner for balancing, correcting data and performing validation routines. This process is configurable within the system and operates within the workflow server process of the system.

Quick Capture

Quick Capture, our data capture engine, processes structured, as well as semi-structured forms (W-2/1099) form types. For structured form types the process involves recognizing predefined locations of where data resides using a template previously set up. For semi-structured forms processing the system utilizes the form layout (example w2/1099) of the form where the data may reside in order to perform recognition. Upon completing the form classification process in the prior step, the system classifies the document type and performs the appropriate recognition steps.

Quick Capture runs in an unattended mode on the server and as such doesn't require any operator interaction in order for it to perform its specific functions. The module accepts images, from the previous stage (*Quick* Enhance), and outputs the best available ASCII result data for the characters within the images furnished to it.

Quick Capture processes data fields containing constrained hand-print numeric, alpha, and alphanumeric fields, machine-print text on form items, barcode recognition, as well as courtesy amounts and legal amounts on payment items such as checks. *Quick* Capture uses some of the world's most powerful Optical Character Recognition (OCR), Intelligent Character Recognition (ICR), Optical Mark Recognition (OMR), barcode (BCR) and check (CAR/LAR) engines.

By combining the advanced form identification features of *Quick* Enhance and *Quick* Capture to recognize form id, 1D, or 2D barcodes or form layout the system can identify records within a transaction without the use of separator sheets. Identifying different formats of the same form within the transaction is then accomplished.

Quick Capture uses multiple recognition classifiers fused together for OCR, ICR, OMR, and barcode recognition (BCR); Courtesy Amount Recognition (CAR) and Legal Amount Recognition (LAR). This multiple engine technology allows *Quick* Capture to be a versatile recognition system processing all field types across all form types, including forms and checks. The CAR and LAR can be applied to the remittance stub/return or check. *Quick* Capture fuses the combined power of the engines to produce the best recognition in the industry.

The *Quick* Capture module is capable of reading the following formats:

- Hand print Numeric
- Hand print Uppercase Alpha
- Hand print Upper/Lower Case Alpha
- Hand print Alpha/Numeric
- Machine print multi-font
- Machine print OCR A & B
- Machine print E13B
- Machine print MICR
- Machine print E7B
- Most commercially available barcodes, including but not limited to 2of5, 3of9, Postal, and Two Dimensional High Density formats
- Courtesy amounts on checks
- Legal amounts on checks
- Amounts on money orders
- Barcodes (1D, 2D, QR codes, Post net)
- Optical mark recognition (OMR)

In addition, it can process the following segmentation types:

- Constrained

- Semi-constrained

- Unconstrained

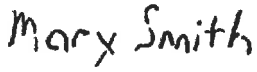
- Monospace

Figure 14 – Segmentation Types

Quick Capture has been tuned to handle poor quality fields that are often encountered during routine processing of forms. The following are examples of some of the image quality problems which do not significantly degrade the recognition process:

- Script Text

- Broken Text



- Smeared Text

- Dot Matrix

Figure 15 – Sample Image Quality Problems

Quick Capture is also capable of performing optical mark recognition in an "intelligent manner." For instance, it is capable of discovering the following anomalies, and corrects them, or flags them with a high degree of accuracy and confidence:

- Mark Primarily out of the box

- Box circled

- Multiple choices checked at the same time (the engine will flag this case)

- Stray marks

Figure 16 – Types of Mark Anomalies

Quick Capture is also capable of performing optical mark recognition to verify the presence of signature and to accept or reject based on business rules for signatures.

Quick Capture has adjustable thresholds for recognition. In fact, it reports back multiple candidates, all ranked by order of confidence. *Quick* Modules utilizes these thresholds judiciously. Not only do we utilize the first confidence value from the first choice of characters, but we also rely on the spread between the two first choices to determine how good a recognition we have obtained on the first choice. The higher the spread and the higher the confidence associated with the first choice result, the better the result.

In addition, *Quick* Capture is capable of automatically recognizing barcodes (all fonts, all sizes, and all shapes).

Figure 17 – Sample Barcode

In addition to the above linear barcode, *Quick* Capture will automatically recognize and interpret two-dimensional barcodes in various sizes (i.e. 10 mil, 15 mil, etc.) as well as QR codes.

Figure 18 – Sample 2D Barcode

Figure 19 - Sample QR code

For checks, *Quick* Capture recognizes MICR fonts with a high degree of accuracy by segmenting each character, including ABA and CPA symbols, and reading each character optically.

Quick FreeForm

Quick FreeForm is an unattended server task that does not require operator intervention. It applies a technologically advanced recognition approach known as Unstructured Templates. This approach combines robustness with maximum flexibility, and uniquely addresses the needs posed by the tax forms processing challenge. In traditional form processing applications, there is a logical form which holds the definition of a set of data fields of interest. Not only the nature of the data fields must be well defined, the exact location of these fields must also be known, and be fixed. The complete collection of definitions of both the data fields and their locations, along with processing instructions of all kinds, are included on what is typically referred to as a form template. Traditional form processing requires at least one template per each instance of a form definition. This approach and technological state of affairs has been also called 'structured form processing.'

In the reality of tax forms, forms may vary due to two main reasons: 1) the data fields in them change from time to time (we'll call that a form variant), and/or 2) the location of the data is different across what we call form variations. The latter may arise due to inconsistent form reproduction, different sources of forms, etc. Nevertheless, in the traditional form processing context, each such form variant and/or variation (together instances) requires the existence of its

own template to support processing batches of forms containing multiple instances. Ultimately, the work involved in maintaining large libraries of templates in that context of structured forms is extensive, and the associated cost is high.

The *Quick* FreeForm unstructured template combines all the logic of the form design, but is not limited by the "image properties" of that design. Since the logic of the form design is the same for all form variants, it will apply to all derivative variants. Practically, only one unstructured template per form or its variations is needed, perhaps with very few exceptions in rare cases, and all its variants are processed using that template.

Quick Key – Balancing Function

Within the *Quick* Modules system, typically the first operator tasks items for transactions that contain payments is the balancing function. Within the *Quick* Key module, the operator will perform the Balance function for all remittance transaction, ensuring the sum total of all payment items in a transaction (amount paid) equals the sum total of all source document amounts in the same transaction (amount due). This verification is performed to ensure that all check amounts are accurate prior to deposit. This process includes comparing all amounts read by CAR/LAR, or keyed (if rejected at CARLAR) on each check against the amount due field read on the document. The balancing process begins as soon as all the amounts in each transaction are recognized. The first step is to key correct any MICR recognition errors in order to satisfy Check 21 deposit regulations. If no MICR line corrections are necessary, the system automatically prompts the user to begin balancing the transaction.

If any transaction within the submission does not balance, the system highlights the Amount Paid on each payment instrument within that transaction (checks, money orders, etc.) and prompts the user to correct the captured amount. The system also highlights the Amount Due on each form within that transaction and prompts the user to correct the captured amount. After any amount correction, the system automatically attempts to rebalance the transaction.

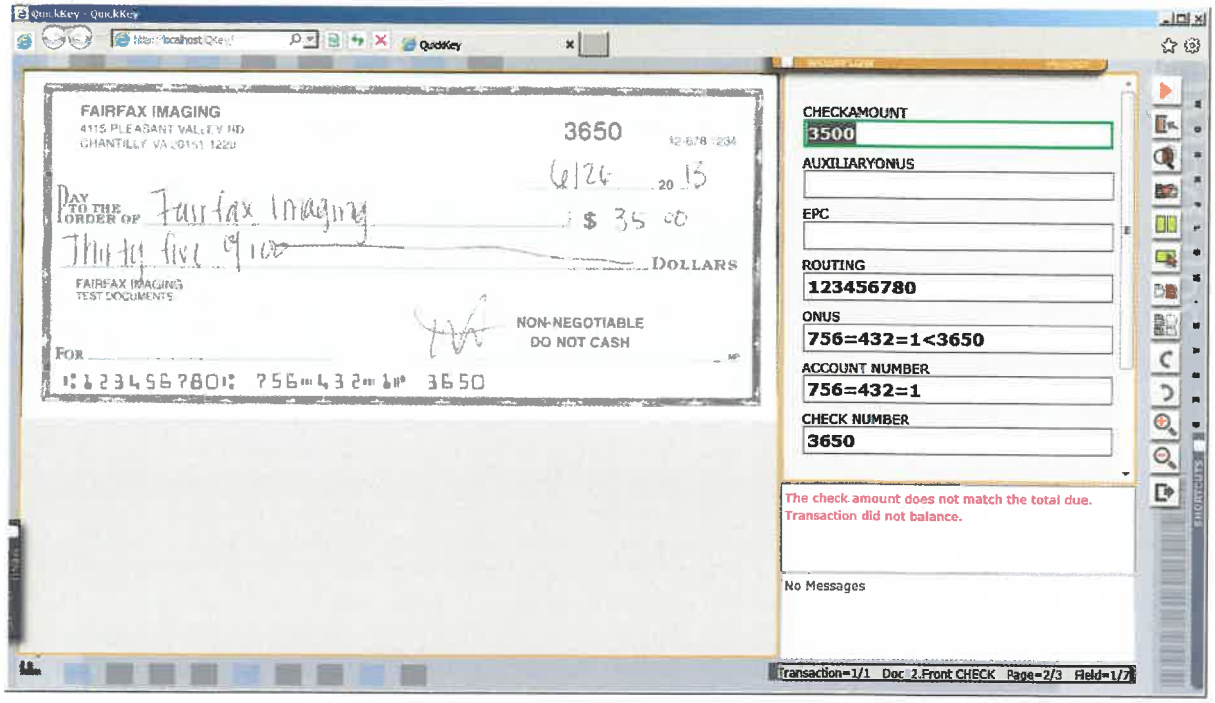


Figure 20 - *Quick* Key with Balance Function Screen

Quick Research

Included in the design for *Quick* Modules is our *Quick* Research module. *Quick* Research is designed to improve the check only process where no form accompanies the payment instrument. *Quick* Research utilizes a database table within the systems SQL database. This MICR line database associates MICR line data with an account number by accumulating data within the database built over time. It attempts to post the check only to the account automatically or provide the operator with the research capability, in case either there is no match or multiple records exist. If it finds a match in the database, it can either present the results to the operator or automatically select the tax type and associated payment elements.

Quick Key – Data Validation

Throughout the *Quick* Modules solution, specific business rules can be invoked to ensure accurate capture of the information prior to posting and deposit. These business rules can vary from simple validation rules like range and date checks to complex business rules involving table lookups and executing algorithms using information from several data items on multiple forms. *Quick* Modules validations are capable of handling virtually any business rule that can be clearly defined and for which the required data can be made available for retrieval from a table, database, or other electronic source.

Quick Key offers four sets of field validation rules.

1. **Standard Generic Rules** -These are the simple rules that apply to every field, and describe summarily the nature of the field. The different types currently supported are:
    - **Generic Data Types** - Fields can be specified as being one of several different data

types and are validated as such. Some of the more commonly used field validation types are phone number, zip code, date, amount, and social security number.

- **Specific Data Types** – Fields can be pre-configured to only allow certain characters to be a part of the data entered. For example, if a field can contain any numeric character and the letter 'M', this validation rule will ensure only those characters are entered as a part of this field.
- **Range** – Numeric, date, and amount fields can have a range value applied to them. This will ensure the information in this field falls between the values allowed for the range check.
- **Field Data Length** – The minimum and maximum number of characters allowed in a field can be set.

2. **Table Lookup Rules** – Any field can be validated through a file lookup. File lookups support any format containing single- or multi-fielded, character delimited data. Files can contain extraneous data and do not have to be formatted specifically for use by File Validation. Rather, any common column within the file can be used for performing field validation. Moreover, *Quick* Key offers a convenient way to enrich the tables. For instance, as new data are discovered that were not part of the table, they are added automatically to the table to be accessed in future attempts.
3. **Database Lookup Rules** – Any ODBC compliant database can be used to validate field information. Through the use of a SQL like statement, it is possible to specify a table and column within the database that will be used to ensure the field information is contained within the database.
4. **Programmed Rules (User Exits)** - Although the *Quick* Modules 5.0 system is highly configurable with the ability create a library of selectable business rules without writing code, the system does have the capability to create User Exit routines for any specialize and unique validation event. These more sophisticated rules or events in the workflow can be created through using a .NET routing. Such programming is simple and either technical team (Fairfax or WV Tax) may perform it.

In addition to single field validation rules, *Quick* Key offers inter-field (or inter form within the transaction) validation rules. This is accomplished by programmatically applying pre-established rules between the fields in the form.

Quick Key also allows the user to attach a note to any specific image within the submission. This note will remain with the image, and when the submission is routed to any other queue, including *Quick* review, they will be able to view the note as well as the image.

In the *Quick* Modules system, all images of one document are always linked together by the data structures. Thus, *Quick* Key will always allow the operator to "connect," "view," and "analyze" images to form one document. All of the visual (client modules destined to be used by an operator) and graphical modules within the *Quick* Modules system provide the ability to zoom easily and readily with one mouse click. We designed these zoom features to provide ease in the data entry, image viewing, and overall ergonomics of the product suite.

Quick Key is the most versatile and comprehensive data entry and correction product on the market.

Operation of *Quick* Key:
Using *Quick* Key is a very straightforward process with a few steps and a number of options. The application may be invoked in a simple browser window. After log in and authentication, the user may:

1. Select a queue
2. Attach to that particular queue
3. Get work object from that queue
4. Edit the fields as they are presented in the Field Image pane
5. Continue doing this until all the fields identified by *Quick Key* as not having met the confidence thresholds set for the transaction or have failed to satisfy a particular business rule have been validated.

It's that simple to use. That is, one transaction at a time, not one batch at a time. The advantages of this scheme are numerous:

- Speed of processing;
- Efficiency in processing;
- An entire batch is not being held up for extended periods of time while one erroneous transaction is being worked;
- Immediate update of the database;
- Immediate tracking of the outcome.

There are two ways to load a work object (transaction) into the *Quick* Key interface:

- Load a Generic Work Object - in this case the system loads transaction one after the other as they are entered into the queue. This is usually how you will start out using *Quick* Key.
- Search for a Specific Work Object - in this case you can enter a work object identification number into the Transaction ID text box and search for that specific transaction. This is usually done if you need to specify a particular transaction to complete the work.

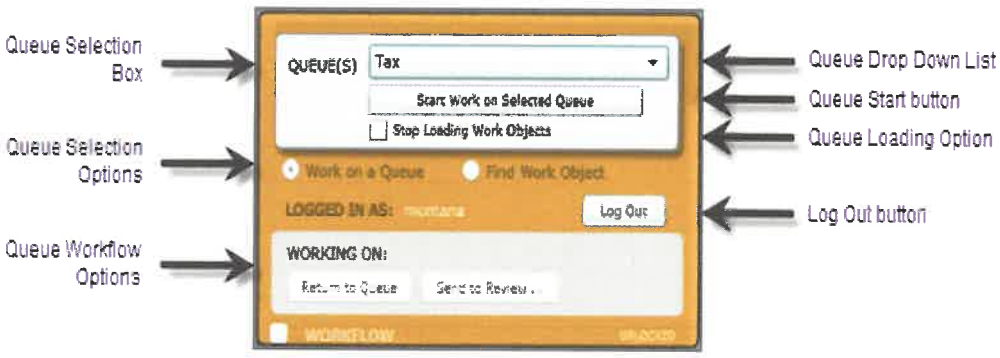


Figure 21 - *Quick* Key Login Menu Options

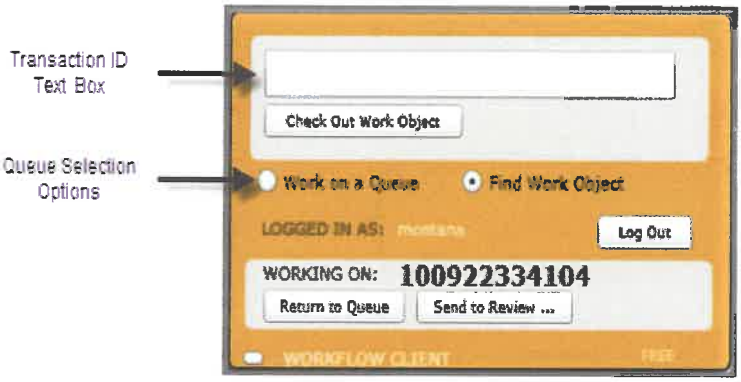


Figure 22 - *Quick* Key Queue Selection

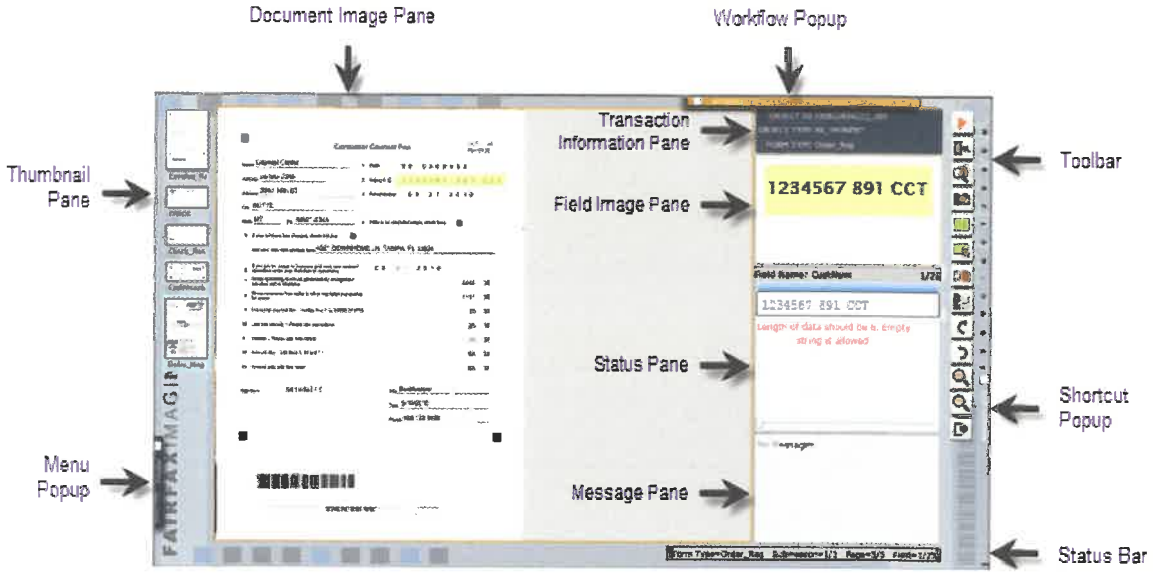


Figure 23 - *Quick* Key Layout

The above illustrates the layout of the *Quick* Key screen. To the left highlights the thumbnail of the transaction in process. The right side pane(s) include the highlighted Field Image Pane of the field in question along with the data entry area above the Status Pane and Message Pane.

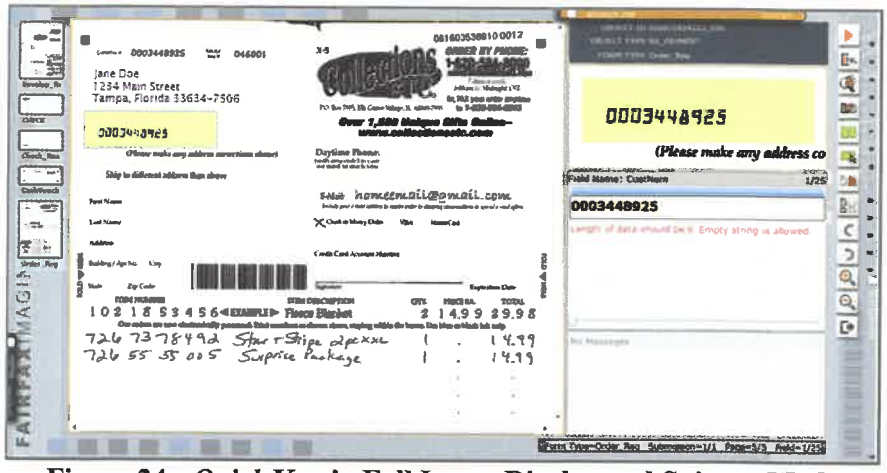


Figure 24 - *Quick* Key in Full Image Display and Snippet Mode

The above screen layout is the most common screen used in conjunction with recognition data entry mode and is most useful for image-based whole field correction and validation of the information captured using recognition techniques. The field in question is highlighted due to low confidence from the recognition engine. The image is shown in full context, and the field is to be re-entered in its entirety. Transaction information is shown, along with error message(s) to guide the operator. The error messages are tailored to specific WV Tax requirements in order to guide the operator to complete the process. All of the information is validated for accuracy using specific business rules.

In Key from Image (KFI) mode, *Quick* Key displays individual pages of a transaction and highlights each field required for entry. This mode also allows full keying from the image without the need of performing recognition. There are two visual displays selections available by the operator. Portrait mode (shown below) provides the full image to the left of the screen with resident data entry fields to the right for entry.

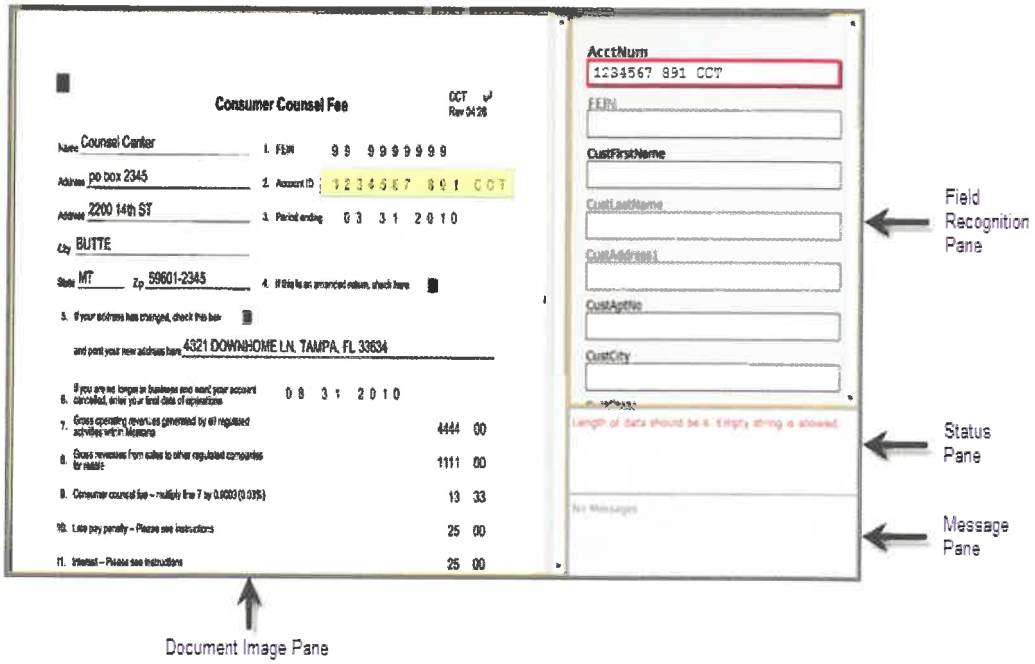


Figure 25 - *Quick* Key in Portrait Mode

The operator can also select landscape mode and place the image at the top of the screen pane with the data entry fields along the bottom of the screen.

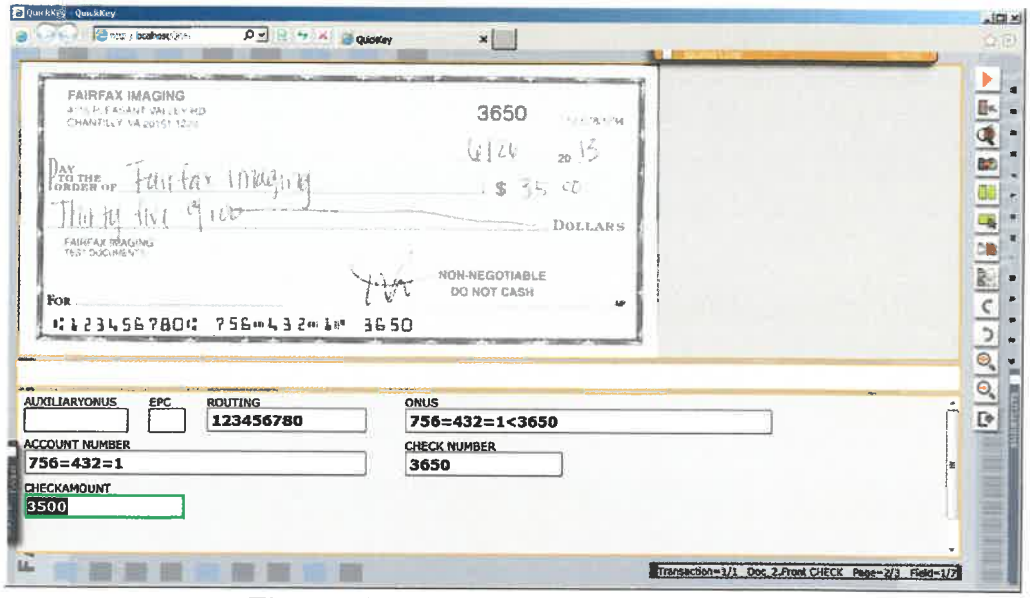


Figure 26 - *Quick* Key in Landscape Mode

Within the window pane of *Quick* Key, the operator at any time can easily select a specific image to view within the transaction by selecting the image within the Thumbnail view shown on the screen.

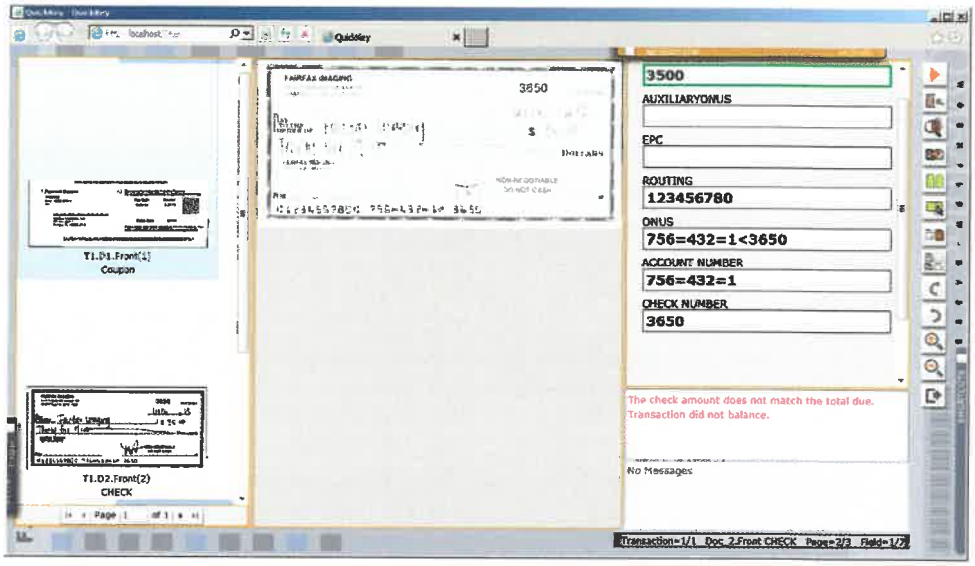


Figure 27 - Thumbnail Images in *Quick* Key

Exception Handling in *Quick* Key:
Exception handling is a breeze in *Quick* Key. *Quick* Key can handle a number of common anomalies right there and then, at the transaction level, without holding up the whole batch. This is a great improvement in performance and efficiency, and has great positive repercussions system-wide.

The following exception conditions can all be handled on the spot in *Quick* Key, without having to resort to sending the entire batch (or even the transaction) to *Quick* Review:

- Form type changes
- Image rotation
- Image manipulation
- Page deletion
- Order swapping within transaction
- Annotation

Naturally, the option to send to *Quick* Review still exists for those anomalies that still remain and that are institutional (albeit at the transaction level, and not the batch level), such as:

- Two transactions that have been accidentally merged by the scanning equipment
- Two transactions that have been separated by the scanning equipment, when they needed to be together
- Illegible or damaged documents producing rogue images that must be rescanned

Figure 28 - *Quick* Key menu for sending to Quick Review

The following table lists the features of *Quick* Key:

Feature	Available in *Quick* Key
Modern, state-of-the-art, slick look-and-feel, using the latest web-based automation technology from Microsoft SilverLight, and the web services	**Yes**
Efficient in transaction mode, item mode, as well as batch mode	**Yes**
Fully automated data validation with minimal or no programming, using business rule logic	**Yes**
Review and correction of low confidence data, and/or data that did not meet business rule criteria	**Yes**
Key data into the system in the default Key from Field view, or switch between two Key from Image views	**Yes (Web-based)**
Double keying of data by a second user/workstation allowing for additional verification of edited data	**Yes**
Preset confidence values and user adjustable thresholds	**Yes**
Easily toggle between color and black and white images, rotate images or zoom in and out	**Yes**
Change form types for each form in a transaction	**Yes**
The ability to select from multiple queues in which to work	**Yes**
Assign certain work objects or subset thereof to certain users or user groups, using business rules	**Yes (No programming necessary)**
Use one click to return transactions to the queue, or send the transaction to a supervisor for review	**Yes**
The ability to determine whether the system will continue to automatically load new work objects once the current one has been completed	**Yes**
Displaying thumbnail images of all pages in the current transaction	**Yes**
Adding annotations to the current form	**Yes**
Returning an incomplete transaction to the queue to be completed at a later date	**Yes**
Sending the transaction to another Key operator or supervisor for further review	**Yes**
Encrypted security on images and access areas	**Yes**
Server based configuration with no requirement to configure anything at workstation level	**Yes**
Selectively load work objects based on established business rules, instead of the First In First Out method	**Yes**

Table 4 - *Quick* Key Features

As seen from the above table, a number of the features that used to require special programming, and in some instances, a special module to perform them, can now be accomplished with no programming, and are built in the *Quick* Key module.

Quick Review

Within the *Quick* Modules system, exception items can be flagged by an operator or by a system process that fails a particular business rule and these items will be routed to *Quick* Review. At *Quick* Review these items can then be reviewed by a knowledgeable worker to ensure accuracy of the information being flagged and confirm the operation. Only a small percentage of work ever is routed to *Quick* Review. Any item noted by an operator for deletion is routed to *Quick* Review. This provides a method of audit trail to those items deleted as well as ensures proper integrity to the operation. Transactional errors are corrected in *Quick* Review which has the capability to move, delete, or insert images, correct form identification, and to redefine transactional boundaries.

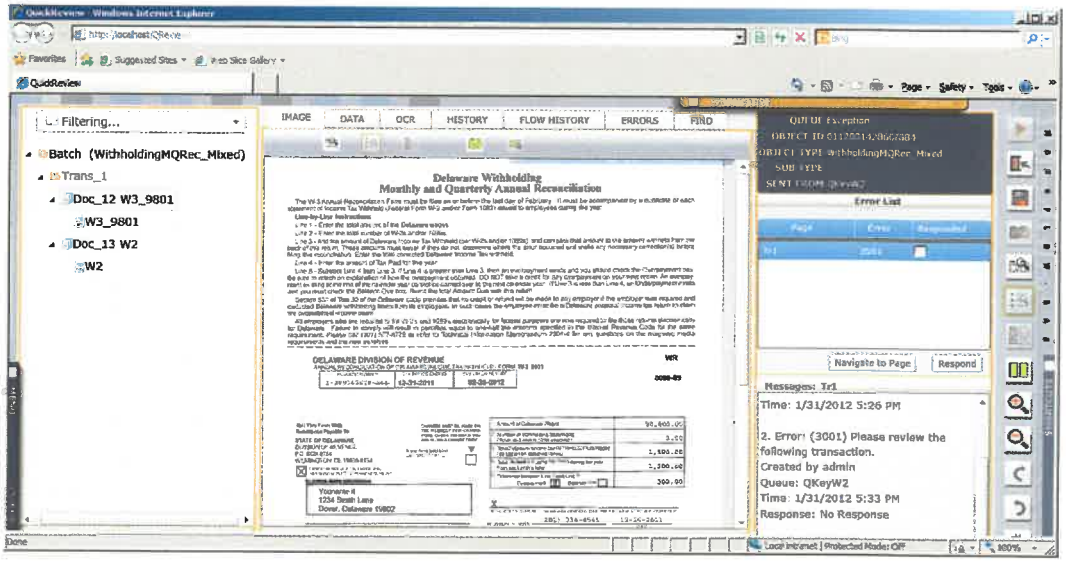


Figure 29 - *Quick* Review Screen Example

The *Quick* Review home page is divided into three sections as indicated above.

- The first section, on the left of the screen, shows a list of images within the transaction sent to *Quick* Review. Clicking on each image on the left will display the image itself.

- The second section, middle of the screen, shows the images and provides access to additional information by selecting one of the tabs above the image, such as OCR data.

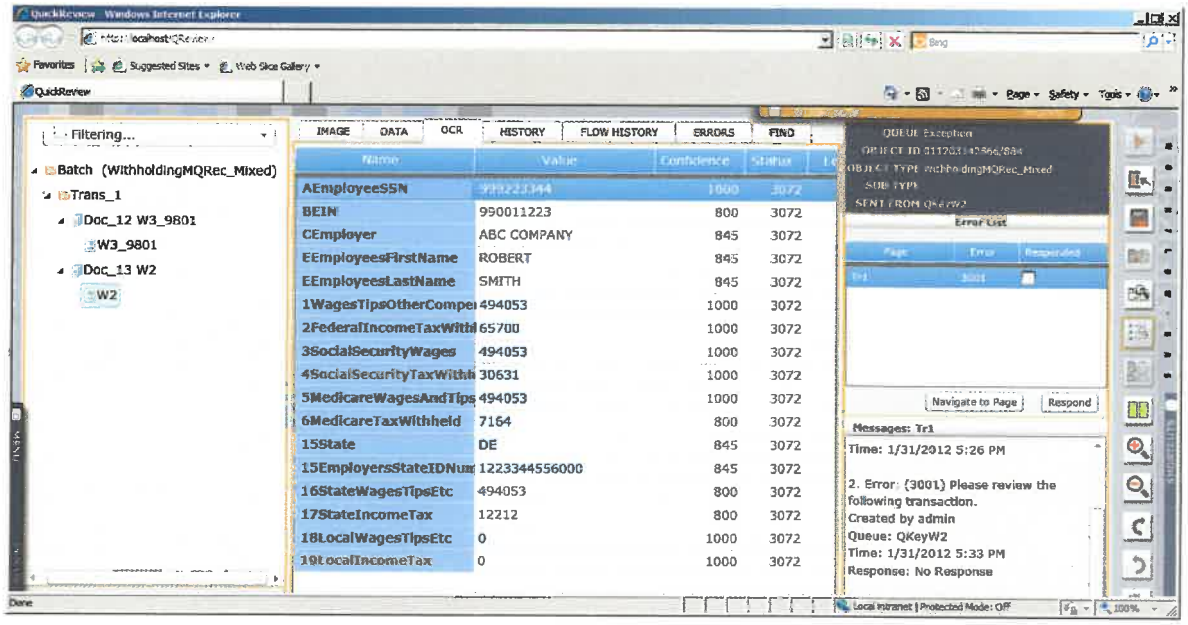


Figure 30 – Detail View of OCR Data within *Quick* Review

Or further detail can be selected in this area, for example to view the flow history to see from which queue the transaction was sent for review.

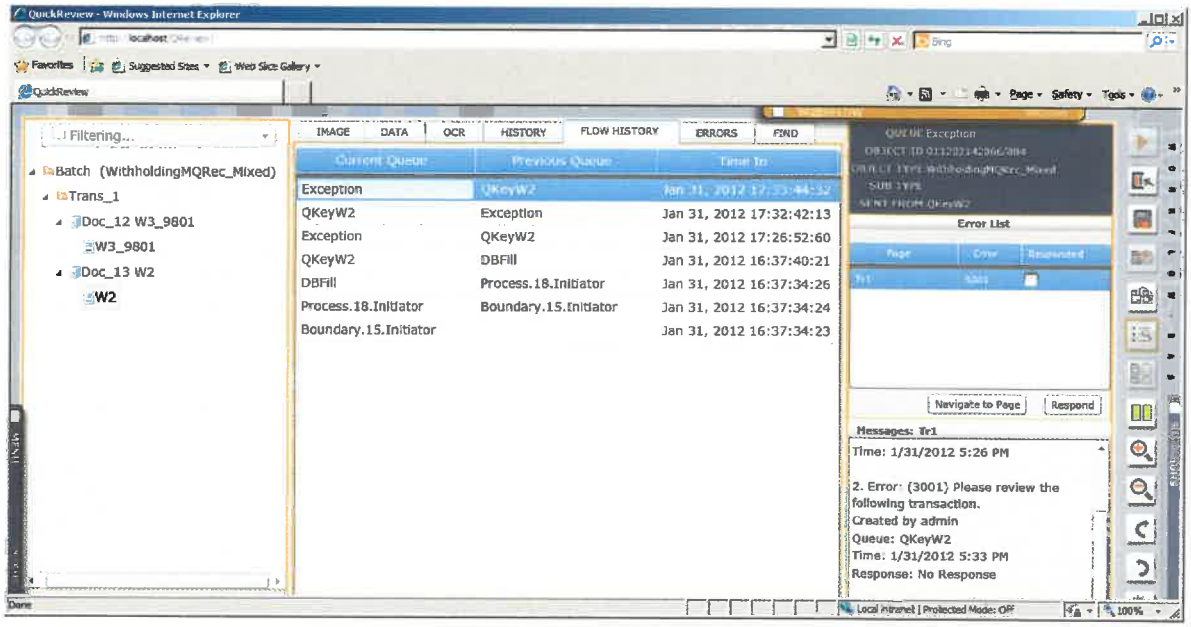


Figure 31 - Detail History of Transaction with *Quick* Review

- The third section, on the far right, shows any errors or messages that were sent with the transaction and allows supervisors to respond to the messages prior to sending the transaction to the correct queue in the system.

The *Quick* Review operator can electronically select those items to be removed from processing. The *Quick* Review operator may also perform a number of other operations pertaining to

transaction integrity review and repair.

The *Quick* Review process is responsible for ensuring that any anomaly that may have occurred at any point in the workflow can be fixed both graphically and easily. This is perhaps one of the most attractive features of our solution, as compared to other "Trash-and-Rescan" approaches to solving transaction integrity problems featured by some competitors.

There are some instances when an anomaly has occurred during transaction processing. These anomalies may be due to operator, mechanical, or paper reasons on the mail opening equipment, during document preparation, and they are not uncommon in highly automated high-speed scanning systems. Although these anomalies happen infrequently in the hardware proposed, our software system has the capability to deal with them. In these instances, the system allows the operator to electronically repair the transaction directly from image without necessarily having to have recourse to the paper. Hence, the *Quick* Review operator can review and repair most paper problems that may affect transaction integrity without hampering the production scanning on the production transports. This is a highly sophisticated image presentation technique, and it contributes to making our system highly flexible.

Quick Review is an operator-controlled workstation module, featuring a user-friendly graphical interface. All the transaction contents appear before the operator with all the images in the submission available for display. It automatically picks up any work object (WOB) from any module in the system that has sent it the work object, and displays the transaction number in the user-friendly graphical interface. As part of the deployment of *Quick* Review, a small scanner is often used to accommodate any rescan activities so as to not impact the production scanning environment.

With the features of *Quick* Review, the operator can utilize an attached scanner to remedy the following exception conditions:

- Insert a whole new transaction, a form, or a payment item that was not scanned at all in the first scanning pass on the transports;
- Delete and re-insert a transaction, a form, or a payment item that was not scanned properly in the first scanning pass on the transports;
- Delete and re-insert a transaction, a form, or a payment item that would not scan at all due to the nature of the paper (paper would not feed through the feeder);
- Insert a whole new transaction, a form, or a payment item that was torn or damaged during regular scanning;
- In batch mode processing, split and re-insert an existing transaction, a form, or a payment item that was double fed during regular scanning.

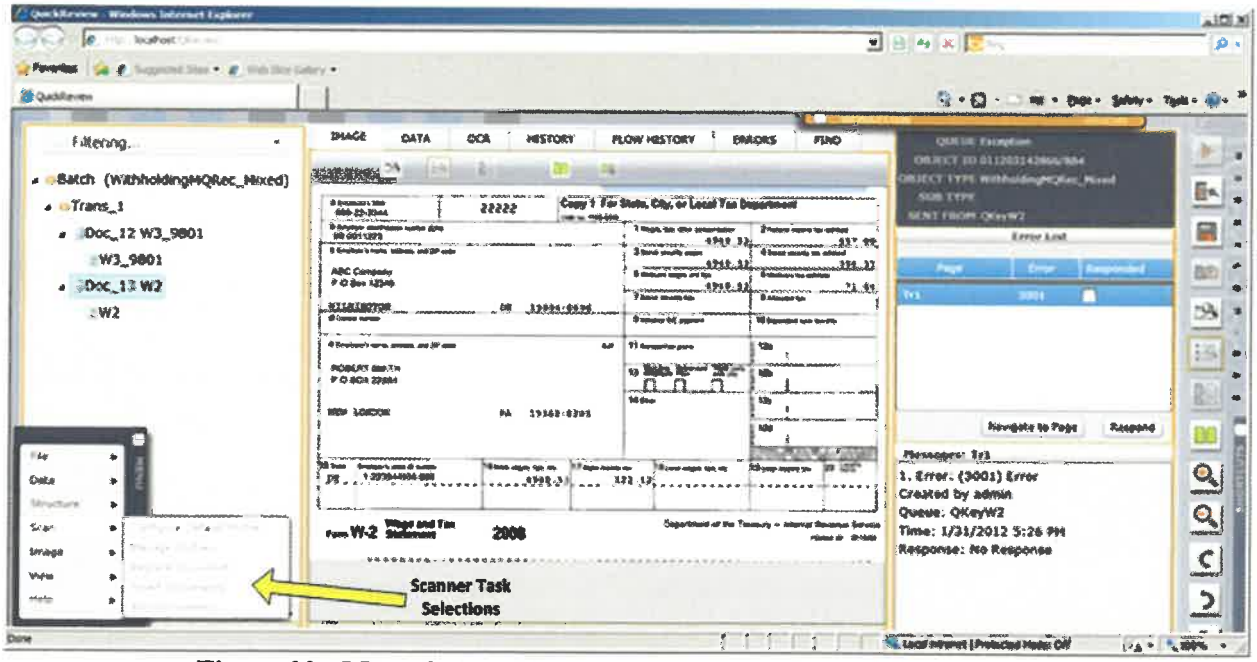


Figure 32 - Menu for Scanning Options within *Quick* Review

Quick Review allows the operator to easily repair any of the following transaction anomalies using any of the following methods:

Attach Note: *Quick* Review allows the transaction review and repair operator to attach a note to any specific image within the submission. This note will remain with the image, and when the transaction is routed back to the sender, they will be able to view the note as well as the image.

Rotate an item: In the event where an item was scanned upside down (due to a document preparation error), this feature enables the operator to rotate the item image without having to delete and rescan the item.

Delete an item: This feature is useful in the rare event where a payment item or a form have been double fed, and the two images are slightly superimposed. It is necessary to delete the "item" in question and rescan the two items.

Add a payment item to a transaction: This feature is necessary when a payment item has been mistakenly left out of the submission. The transaction where the payment item belongs is found, and the payment item is scanned, and inserted into that transaction.

Add a form to a transaction: This feature is necessary when a form has been mistakenly left out of the submission. The transaction where the form belongs is found, and the form is scanned, and inserted into that transaction.

Add a transaction to a submission: This feature is necessary in case an entire transaction was left out the submission by mistake. The system allows the operator to add the transaction into the submission at any time during the review and repair stage. The other transactions within the

submission are left intact.

Delete a transaction from submission: This feature is necessary when an entire transaction needs to be deleted. The system allows the operator to delete the transaction from the submission at any time during the review and repair stage. The other transactions within the submission are left intact, and the submission integral.

Change a payment item into a form: This feature is useful in the unusual event where a form was mistakenly identified as a payment item by the software (possibly due to the presence of noise in the bottom area of the item where the MICR data are found).

Change a form into a payment item: This edit feature is useful when a payment item was mistakenly identified as a form by the software (possibly due to the weakness of the MICR).

Quick Modules provides an audit log to track and/or record the reason for a reject and the identity of the user requesting the reject.

Quick Output

At this point in the workflow, all the data has been perfected and the images are waiting to be archived in the image repository. *Quick* Output is a general-purpose output stage. It will automatically receive all completed transactions that have been balanced, validated and corrected in the prior steps in the workflow and append or stores the information in an output data file. File creation and output consisting of various formats can be performed and multiple transmissions can be generated daily to maintain the system output.

Through the systems *Quick* Output module, data files will be created that are transmitted to the designated endpoint(s) that WV Tax requires for GenTax®. In addition to the data elements, the Quick Output module will provide images to the GenTax® system for long term storage. This can be one or many file-types from standard to highly custom. There is virtually no limit to the number and type of files that can be created as long as the file format can be specified.

Quick Check 21

The *Quick* Modules solution incorporates electronic presentment of the payment items for deposit electronically without the need to manual encode and deposit U.S. based check items. Within the Fairfax Imaging solution the *Quick* Check 21 flow consists of three different modules. The first module controls which information is gathered from the database and generates the Check21 file, also known as an "X9.37" or "937" file. The second module transmits the Check21 937 file(s) to WV Tax's bank, listens for acknowledgements from the bank, and updates the status of transmitted items. The third module is a user interface that provides reporting on the Check 21 process, the ability to fix rejected items and deal with any issues that may arise in the process.

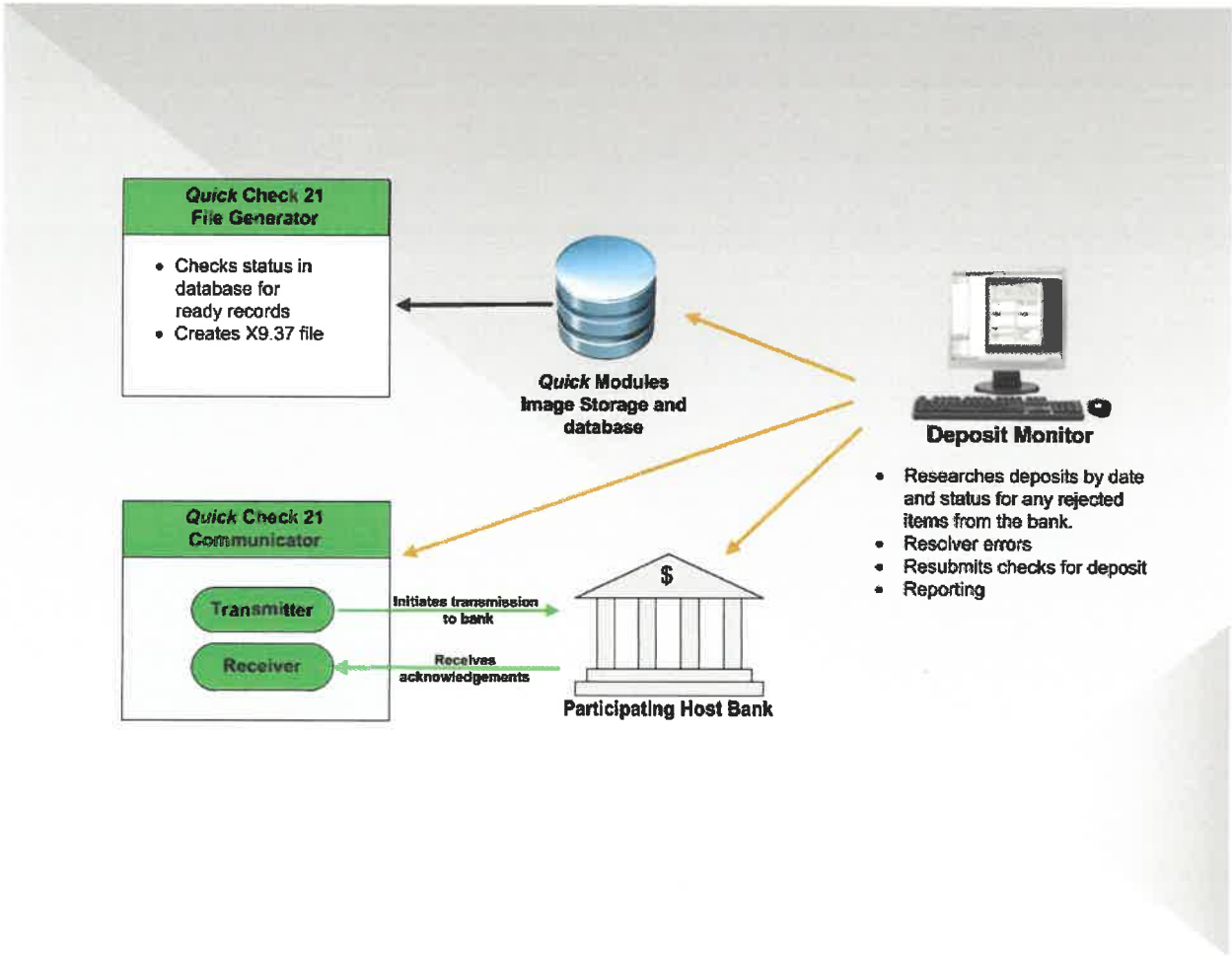


Figure 33 – Check 21 Process Workflow

The Check 21 process provides electronic deposit to as many deposit banks as is necessary to fulfill WV Tax needs. Image Quality Assurance (IQA) is performed for each set of image (937) records to ensure compliance to Federal Reserve standards for electronic deposits. This includes:

- An individual item must have corresponding front and back image segments.
- Each image segment must have a minimum resolution of 200 dpi.
- Each segment must be black and white and in the TIFF 6.0 CCITT Group 4 compression format.
- Missing/torn corners analysis is performed to determine if any of the document's four corners are either folded or missing.
- The document length is calculated by dividing the horizontal pixel count by the pixel density (dots per inch) to ensure it is within standard check length specifications.
- The document height is calculated by dividing the vertical pixel count by the pixel density (dots per inch) to ensure it is within standard check height specifications.
- Document skew is measured to determine that the image is of sufficient orientation and presentment.
- Pixel count is performed to ensure acceptable document image quality and noise ratios are

achieved and that an image is not too dark for presentment.

***Quick* Check 21 File Generator**

The Check21 File Generation module runs as a service without any user intervention and is controlled by an XML configuration file. This configuration file can be edited to change the behavior of the service. The module can be set to query the *Quick* Modules Check 21 database at whatever time and frequency required. By default, all checks that are currently ready to be processed are put into the Check21 937 file. If business rules require checks to be held for a specified reason, the module can accommodate those needs.

Once the range of data has been specified, all of the necessary information is pulled from the Check 21 database and a Check21 937 ICL (Image Cash Letter) file is created. All of the data that has been pulled within the database is marked as "Processed" to ensure that it does not get sent twice. The *Quick* Modules Check 21 process also compares transactions against the database to ensure no duplicate items exist and perform other validations of the transactions (example no check can be for zero amount). Prior to transmission, any required inclusion of data such as check amount or endorsement can be annotated into the check image. The completed Check21 ICL file is then placed in a specific folder (WV Tax specified) to await transmission.

***Quick* Check 21 Communicator**

The communication portion of the Check 21 flow consists of two processes:

- **Transmitter**
  The Check 21 transmitter will automatically send any ICL files that have been processed during the day according to the configured schedule. Files can be collected and sent to the bank all at once, or can be sent as multiple files throughout the day. The transmitter supports FTP w/ PGP encryption, SFTP, FTPS, and HTTPS transmission methods to ensure secure transmission of the data.

- **Receiver**
  The Check 21 Receiver listens for acknowledgements from the bank to determine whether or not the file was accepted or rejected. The actual type of acknowledgement is defined by the bank and is usually either an email or a file that is captured by the Check 21 receiver and interpreted. If a file is accepted with no errors then all of the checks that were contained within the accepted file are flagged as "Accepted" and are reported as such by the bank. Upon receiving notice through the acknowledgement process that any item was rejected by the bank, the Check 21 system will mark the rejected item(s) as such and adjust totals as necessary to match the bank's records. These rejected items are then resolved using the systems Deposit Monitor process.

***Quick* Check 21 Deposit Monitor**

Deposit Monitor is an operator task item for the Check 21 process which provides reports on check aging (if checks are not immediately deposited), invalid checks, and the deposits sent through Check21. It also provides functionality to fix rejected items and to mark them for redeposit. Deposit Monitor tracks the deposits after they have been created. Any of the data tables shown in Deposit Monitor can be exported to a Comma Separated Value (CSV) file.

The operator is capable of viewing the following types of reporting/status:

- Daily and Weekly Summaries
    - Daily Summaries show all Deposits that were Transmitted, Accepted, Rejected, or Deposited Manually.
    - Weekly Summaries is similar to the Daily Summary except that it shows all Deposits Transmitted, Accepted, Rejected, or Deposit Manually for that week.
- Pending Deposits, Deposits by Date, Deposits by Account
    - Pending Deposits are defined as Deposits with status indicating Ready for Processing, In Processing, Held, Awaiting Transmission, and Transmitting. Searches for all Pending Deposits may be limited by a single date or date range.
    - Deposits by Date allow searches for all Deposits that have been Transmitted, Accepted, Rejected, or Deposited Manually on the selected date or date range.
    - Deposits by Account allow searches for Deposits that originated from selected Sites and were targeted at selected deposit accounts.
- Pending Items, Rejected Items, Aging Items, Invalid Items
    - Pending Items are defined as those with statuses that are Ready For Processing and Waiting on Backend.
    - Rejected Items are defined as having been rejected due to image quality analysis, MICR, amount, and duplicates.
    - Aging Items are defined as items that have been sitting in the system with a Waiting on Backend or Rejected status for more than one day.
    - Invalid Items are not the same as Rejected Items. These are items that fail due to some internal business rule supplied by WV Tax. These items never get deposited or processed but are reported upon for tracking and disposition.

There are four different levels of users for Deposit Monitor: Reader, Editor, Supervisor, and Administrator. Readers are allowed to do searching, but when viewing deposits or items they may only add comments. They cannot change any existing information. Editors can do everything that Readers can do, but they can also update deposit statuses from Transmitted to Accepted, Rejected, or Manually Deposited. They can also fix rejected items. Supervisors can do everything that Editors can do, but they can also update items from an Accepted status to a Rejected Status or from Accepted to Deposited Manually. Administrators can do everything.

Main Screen:

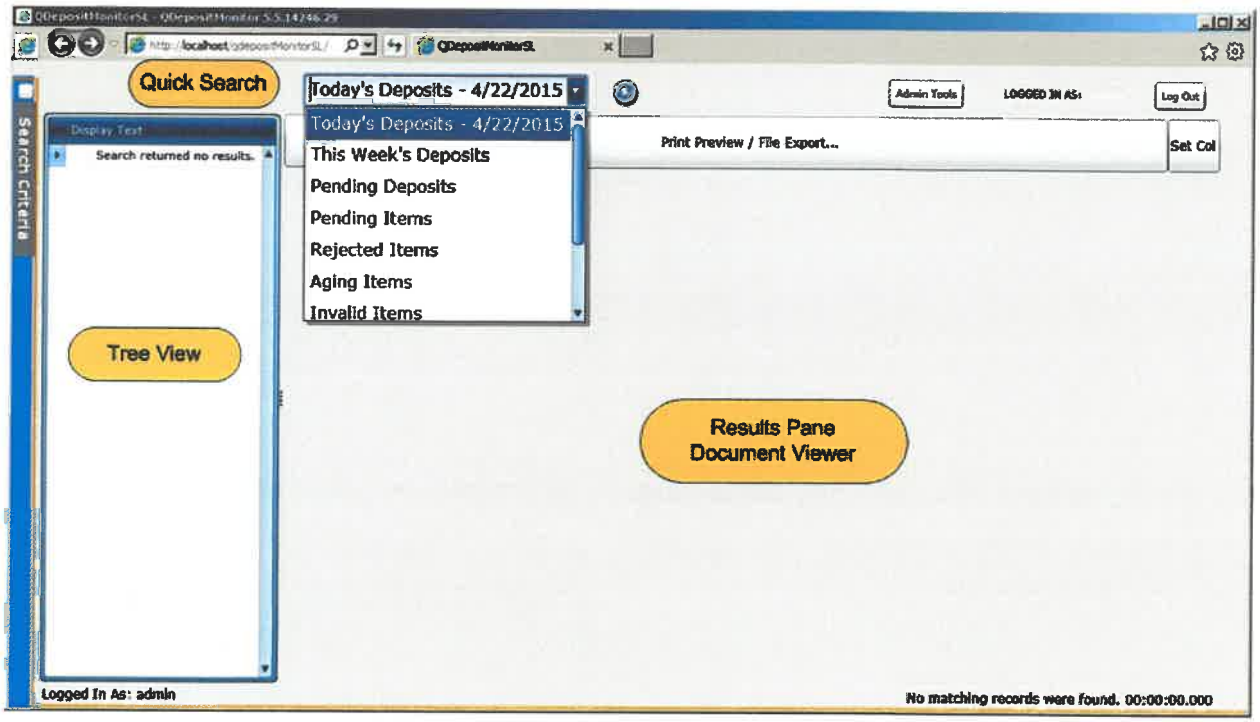


Figure 34 - Deposit Monitor Screen Layout

The Deposit Monitor home screen contains the following areas: Quick Search, Tree View, Results Pane and Document Viewer, and a retractable **Search Criteria** pop up menu (shown retracted on the far left).

The **Quick Search Selector Box** – is used as to make quick selections for displaying deposits and items in the Results Pane.

Figure 35 – Quick Search Selector Box

Selections include the following options:

- Today's Deposits
- This Week's Deposits
- Pending Deposits
- Pending Items

- Rejected Items
- Aging Items
- Invalid Items
- Custom Deposit Search
- Custom Item Search

1. **Today's Deposits**
   Selecting the **Today's Deposits** option will display all deposits that were transmitted, accepted, rejected or deposited manually on today's date.
2. **This Week's Deposits**
   Selecting the **This Week's Deposits** option will display all deposits that were transmitted, accepted, rejected, or deposited manually this week. The current week is specified as Monday to Sunday.
3. **Pending Deposits**
   Selecting the **Pending Deposits** option will display all available deposits with the following statuses:

   - Ready for Processing
   - In Processing
   - Held
   - Awaiting Transmission
   - Transmitting

4. **Pending Items**
   Selecting the **Pending Items** option will display all of the checks with the following statuses:

   - Ready for Processing
   - Waiting on Backend

5. **Rejected Items**
   Selecting the **Rejected Items** option will display all of the checks with the following statuses:

   - Rejected
   - Rejected IQA
   - Rejected MICR
   - Rejected Multiple
   - Rejected Invalid MICR
   - Rejected Front Image Required
   - Rejected Rear Image Required
   - Rejected Images Required
   - Rejected Amount
   - Rejected Too Many Images
   - Duplicate Record
   - Potential Duplicate Item

6. **Aging Items**
   Selecting **Aging Items** will display all checks that have been sitting in the system with one of the following statuses for more than one day:
   - Waiting on Backend
   - Rejected

7. **Invalid Items**
   Selecting the **Invalid Items** option will display checks that have failed an internal business rule, or are a copy of another legitimate item. These are items that will never be processed through Check21 or deposited.

8. **Custom Deposit Search**
   Selecting the **Custom Deposit Search** option will open the **Deposit Search tab** on the Search Criteria pop up menu, which allows you to enter detailed query criteria for searching for specific deposits. Select the checkboxes to elect and customize your search criteria.

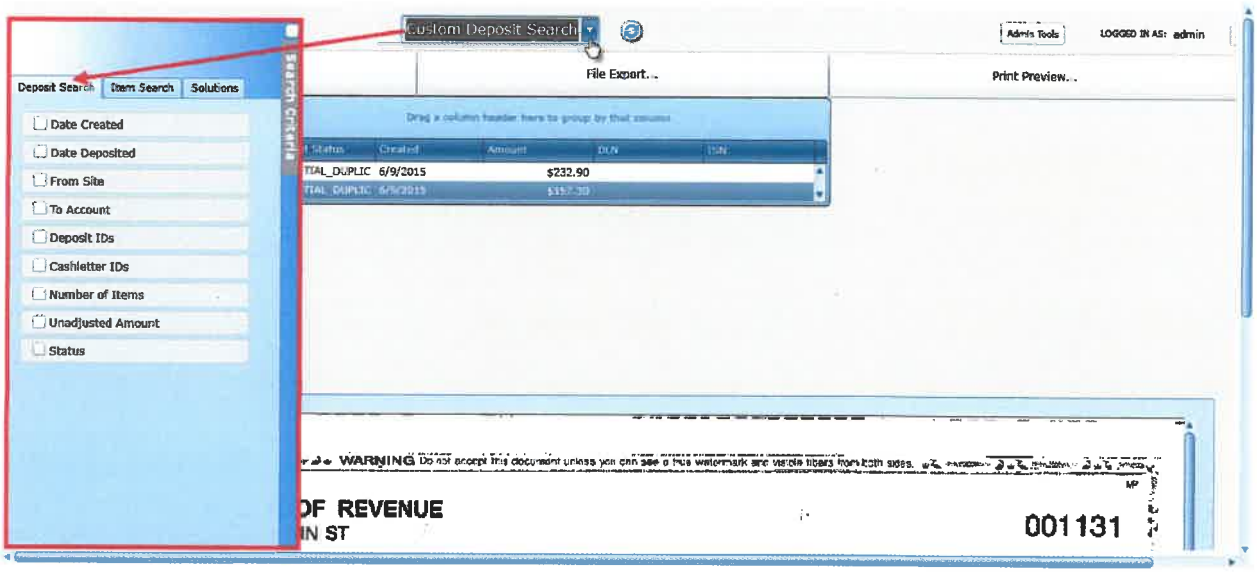


Figure 36 – Deposit Search Tab

After entering search criteria, clicking the **Search** button will display query results in the Results Grid.

9. **Custom Item Search**
   Selecting the **Custom Item Search** option will open the Item Search tab on the Search Criteria pop up menu, which allows you to enter detailed query criteria for searching for specific check. Select the checkboxes to elect and customize your search criteria.

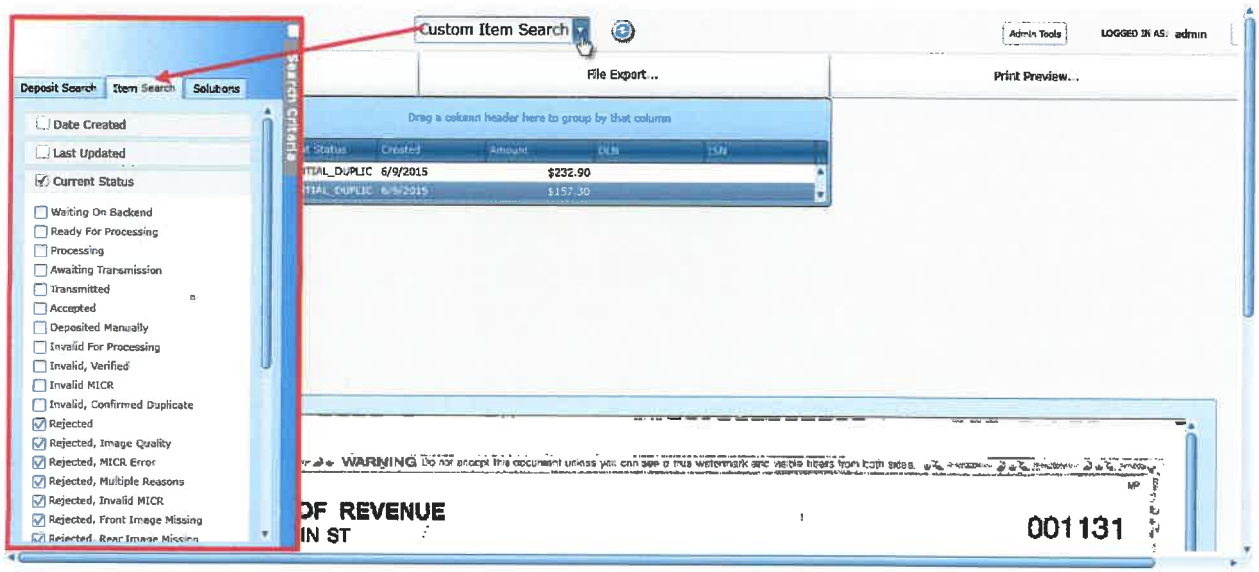


Figure 37 – Custom Item Search

After entering search criteria, clicking the **Search** button will display query results in the Results Grid.

The **Tree View List** – displays on the left side of the Deposit Monitor screen and shows a hierarchy of deposits or check items. Selecting a row on the Tree View will narrow the results in the Results Grid.

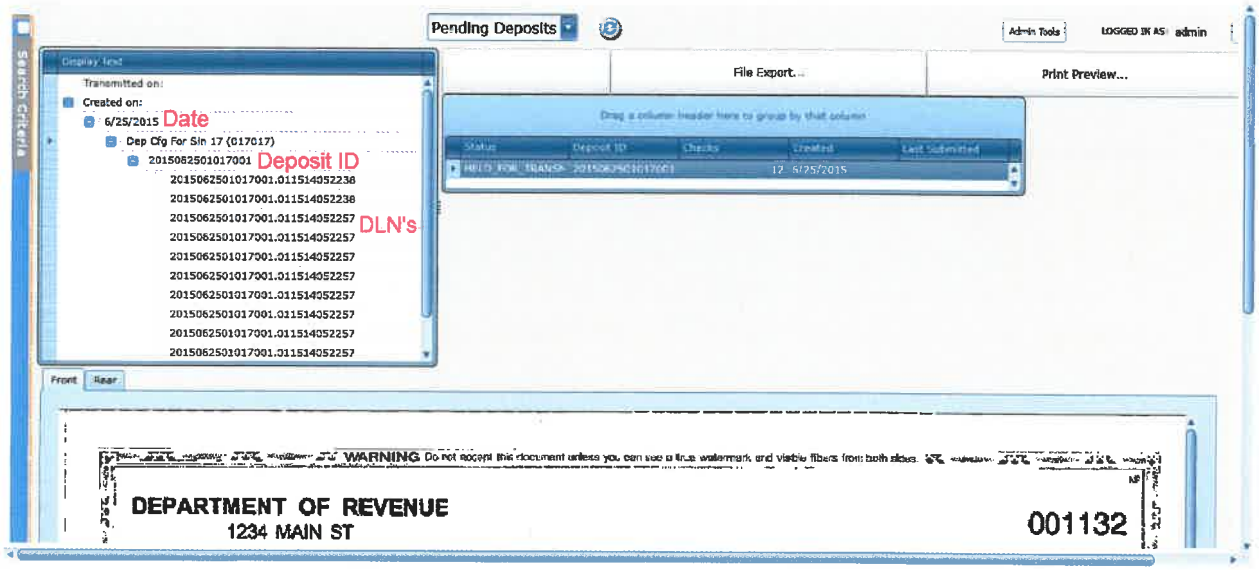


Figure 38 – Tree View

The **Results Pane** – displays all of the checks and items that fit the selection/search criteria.

- **Set Col** button – used to select display columns in the Results Grid.
- **Print Preview** button – used to print the results.

- **File Export** button – used to save/export the results.

The Results Pane displays in the main part of the Deposit Monitor screen. It shows query results based on the Quick Search selection or custom search criteria.

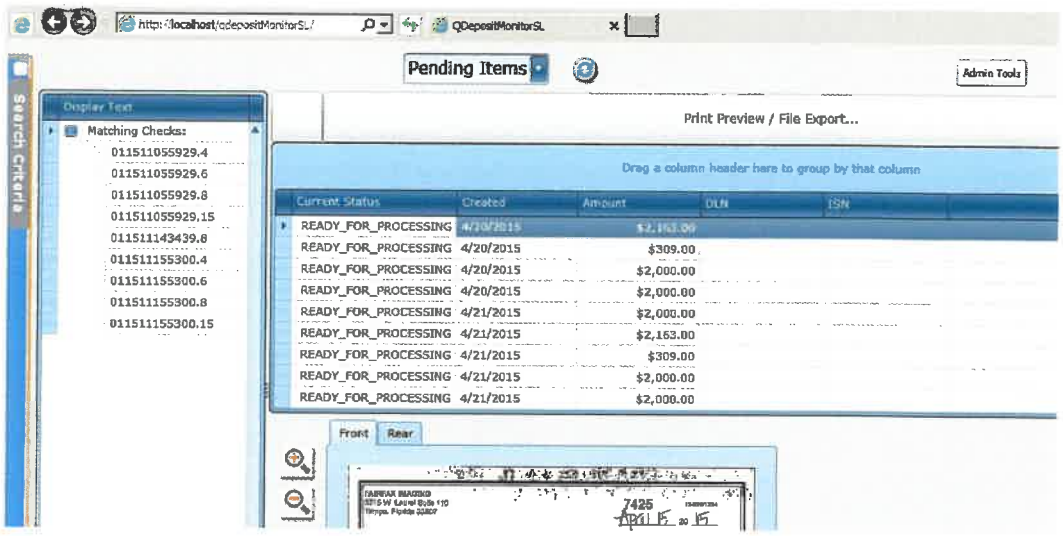


Figure 39 – Results Pane

The **Document Viewer** – displays the check image for the current selection in the Results Grid.

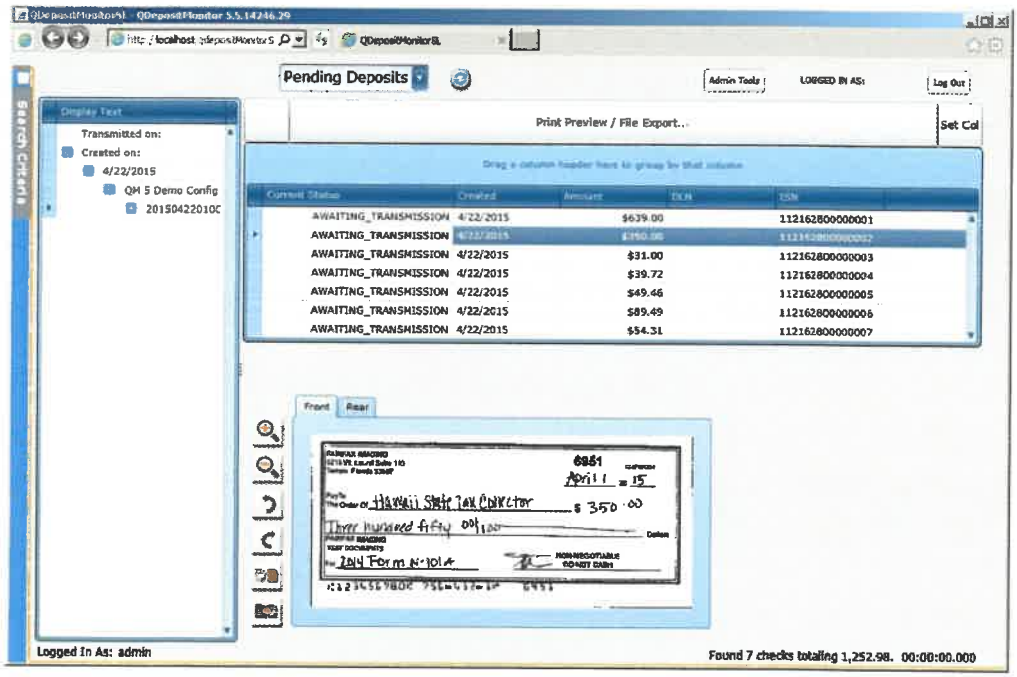


Figure 40 – Document Viewer

The retractable **Search Criteria** pop up menu (shown retracted on the far left) – when expanded allows you to search for specific deposits or items.

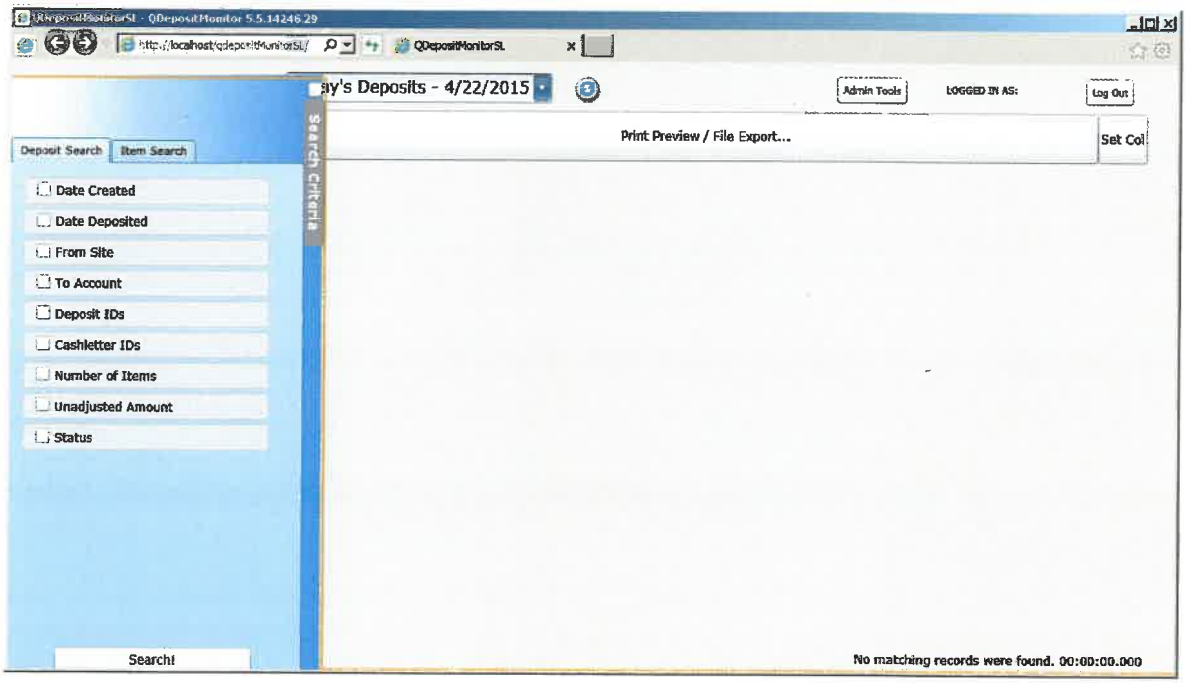


Figure 41 – Deposit Search

Deposit View

The Deposit View allows the user to see all stored data for the Deposit, the Deposit's history, and any comments that other users have made on this Deposit. Depending upon the user's login rights, they may be able to only add or view comments or if they have full privileges they may update the status of deposits.

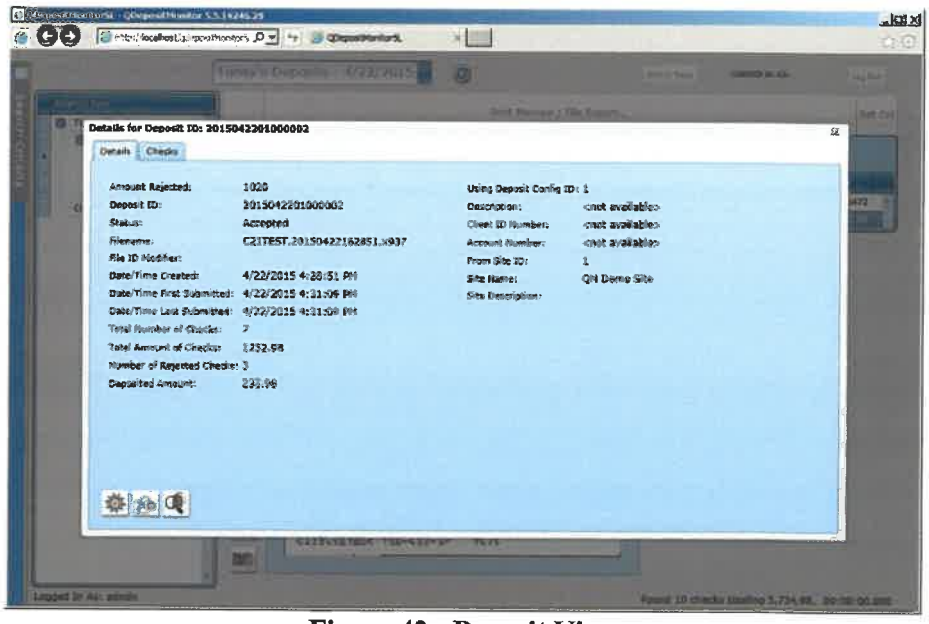


Figure 42 - Deposit View

Updating Deposit Status

The *Quick* Check 21 module provides several statuses within the Deposit Monitor. These include:

- Awaiting / In Transmission - The deposit's Image Cash Letter (ICL) has been generated but is currently waiting to be transmitted or is currently being transmitted. In the case of very large ICL files, it can take several minutes to transmit depending upon the speed of the connection to the bank.

- Transmitted - The deposit's ICL has been successfully transmitted to the bank but the bank generated response files have not yet been retrieved and processed to indicate the file has been accepted.

- Accepted - The deposit was accepted and the checks within the deposit have been successfully deposited. Note that just because a deposit is accepted does NOT mean that all items within the deposit were accepted; individual items can be rejected. If items are rejected, depending upon the bank and electronic confirmation record indicating the items that were rejected are provided. Deposit Monitor easily identifies these transactions and the operator may resolve them through the Check View screen, accessible by double clicking individual items in each deposit.

- Rejected - The entire deposit was rejected because the number of rejected items within the deposit was too high.
- If a Deposit is in a TRANSMITTED or HELD status and the user has the appropriate access level, that user may update that Deposit's status. Selecting the "Update Deposit Status" button at the bottom of the screen allows the user to update the deposit status.

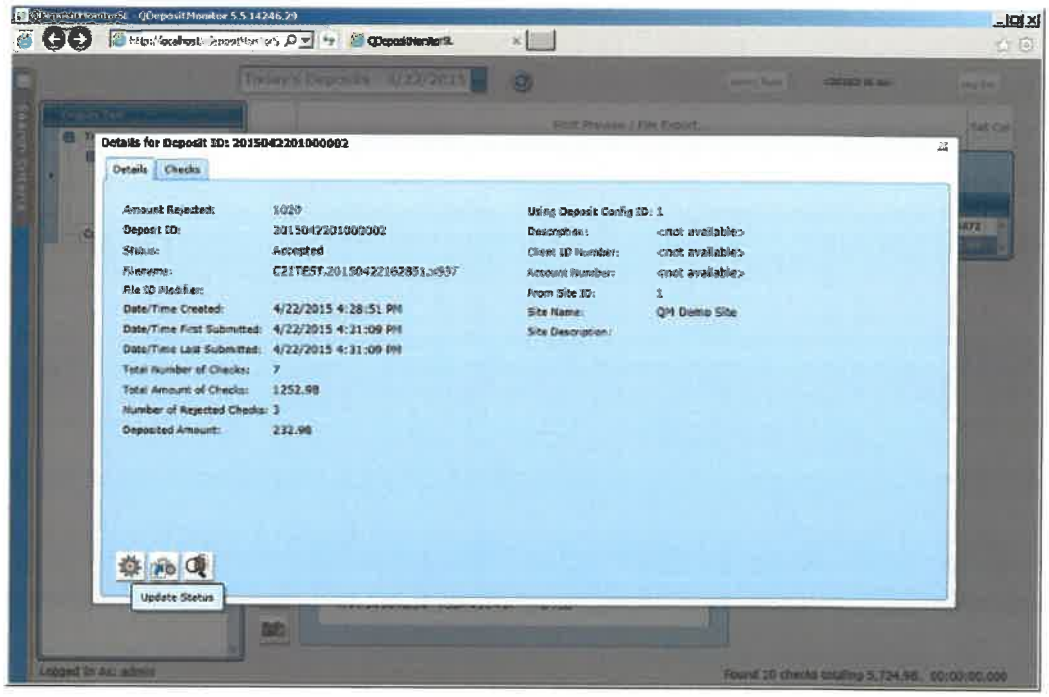


Figure 43 - Updating Deposit Status

Deposit History

The *Quick* Check 21 module will provide a detailed history of the deposit. The history of the deposit is shown from the time that it was created to the point in which it is transmitted and accepted.

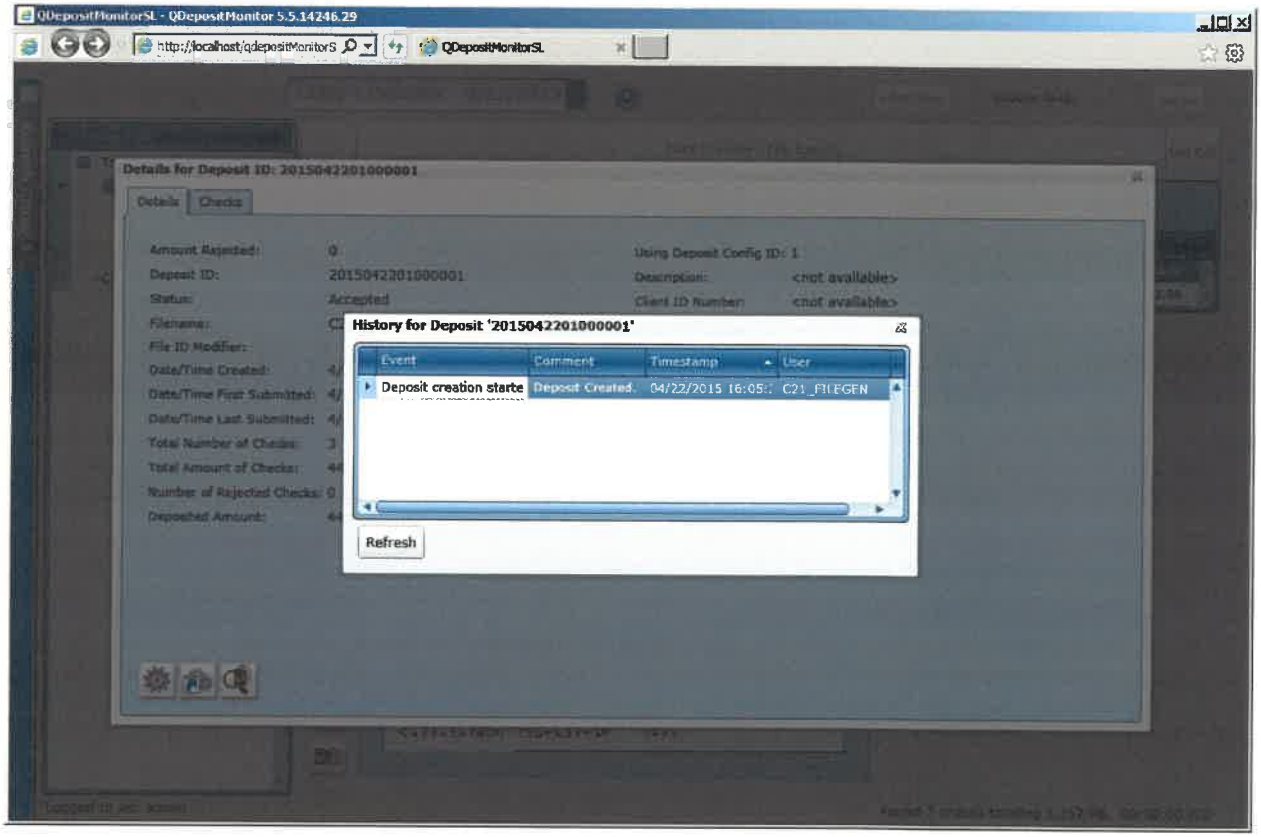


Figure 44 - Deposit History

Check View

Double-clicking an individual item in any of the results screens will bring up the Check View screen. The Check View allows the user to see the front and rear images of the item, the stored MICR data, the item's current status, and any comments that other users have made on the item. When a user opens up an item it is locked to that user. If a user tries to open up an item that is already locked it will be opened up as read-only, regardless of their user level.

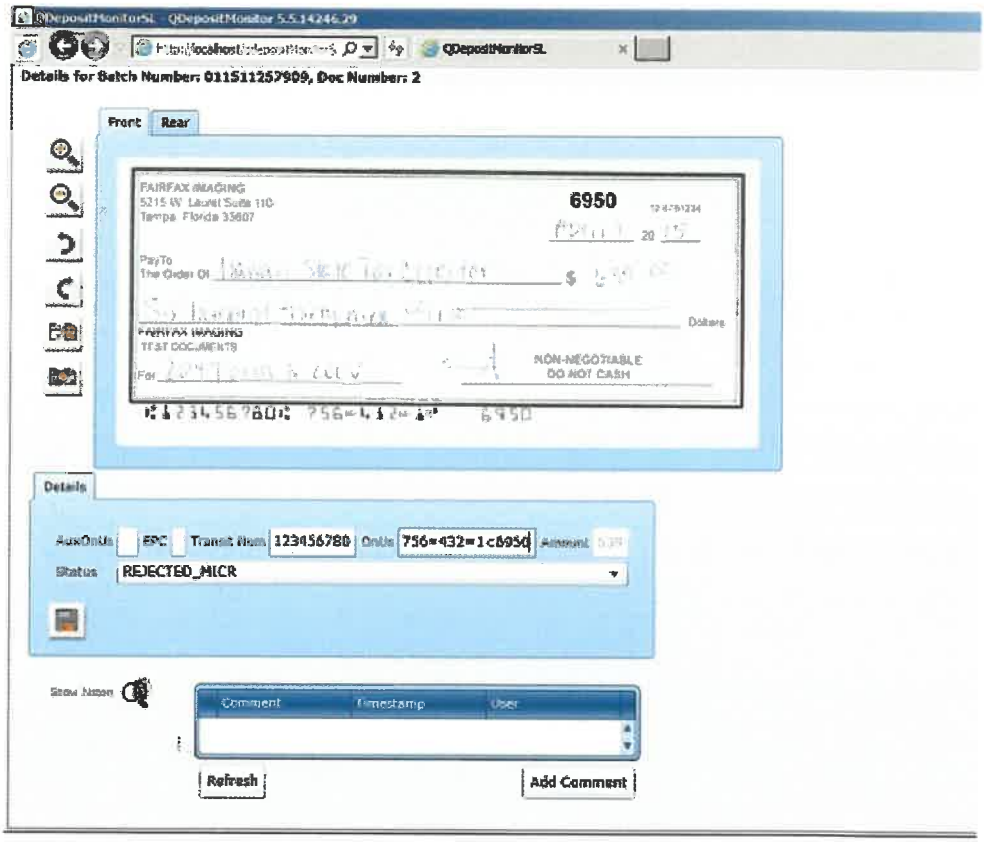


Figure 45 - Check View Mode of Deposit Monitor

Updating Status

Different user levels have different abilities when it comes to changing item statuses. Editors can change Rejected items to either Manually Deposited or Ready for Processing

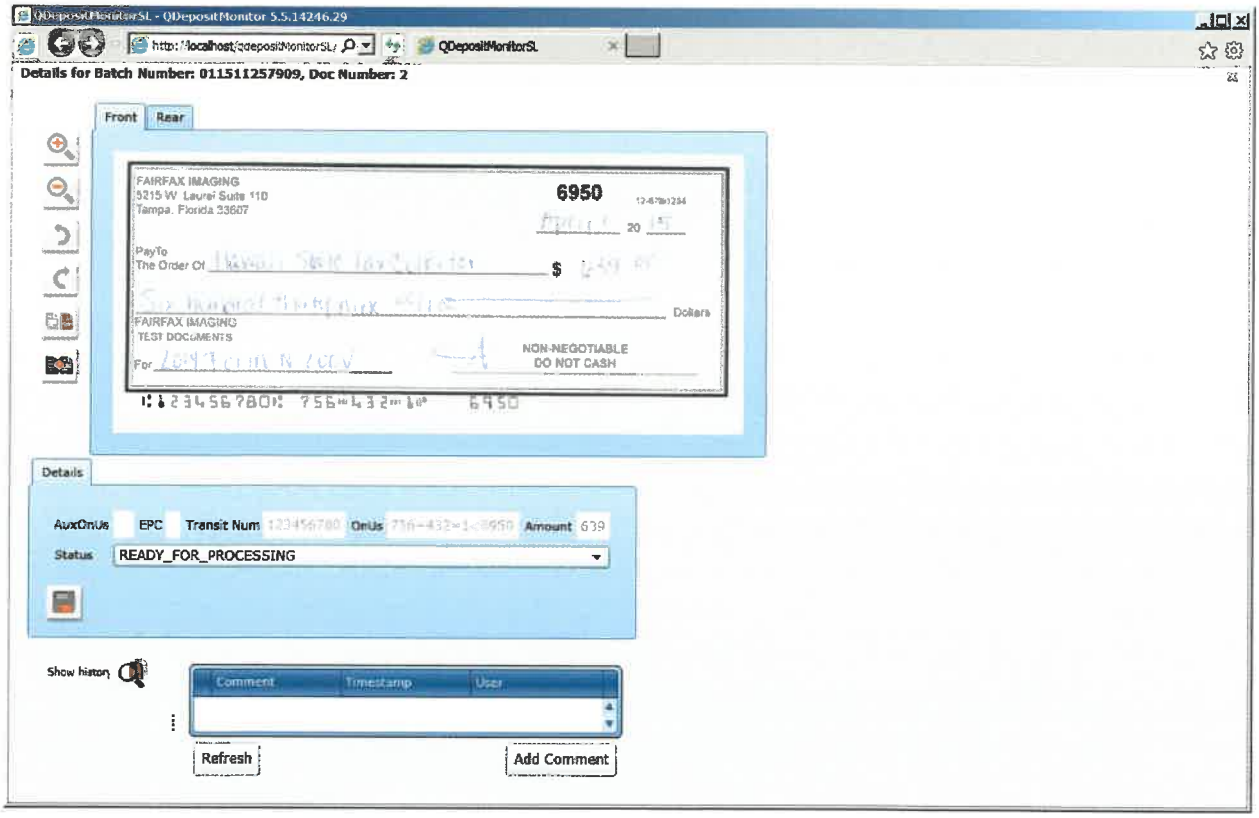


Figure 46 – Check Sample with Status Options for selection

Quick Modules Tools Outside of the Workflow

System Monitoring and Reporting

The solution proposed offers a robust set of tools that allow WV Tax to monitor the daily production and archival databases of the designed solution. Fairfax Imaging recognizes WV Tax's desire to monitor the production systems continuously in order to achieve maximum productivity and address any bottlenecks in the workflow.

Quick Workflow Monitor

The *Quick* Workflow Monitor module provides real-time administrative and management oversight into the current performance of the system of the *Quick* Modules software allowing associated queue(s) to be monitored. If desired, a transaction within a queue as well as the details associated with the transaction can also be viewed.

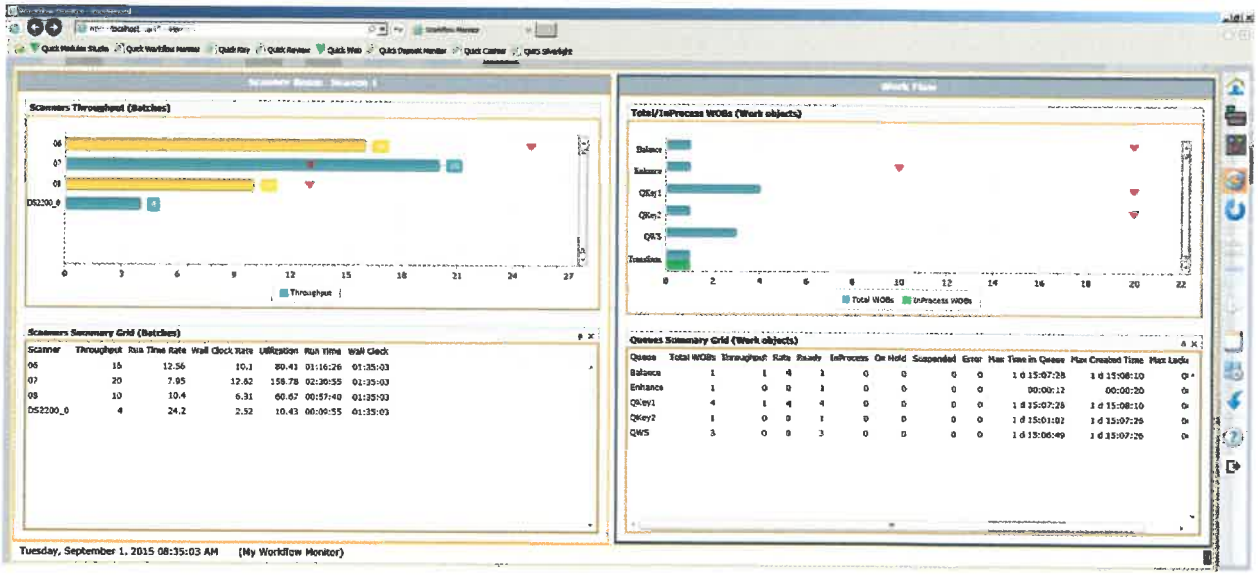


Figure 47 - *Quick* Workflow Monitor Home Page

The *Quick* Workflow Monitor enables the operation management viewing of the number of transactions in a queue, the status of each transaction and associated documents, the contents of each transaction and any errors that occurred in any transaction. *Quick* Modules logs actions undertaken on all transactions into log files for each module in the system, to include date and time and type of message. This information may be accessed in real-time, and may be displayed using *Quick* Workflow Monitor. *Quick* Modules relies heavily on log files to inform the system administrator of the progress of the various operations that it performs. Particularly, all error and exception conditions are logged.

Quick Modules keeps a historical database table that contains ALL actions undertaken on the transaction, on a module by module basis, to include the following information:

- Date and time of transaction check in
- Date and time of transaction check out
- Operator ID
- Length of processing

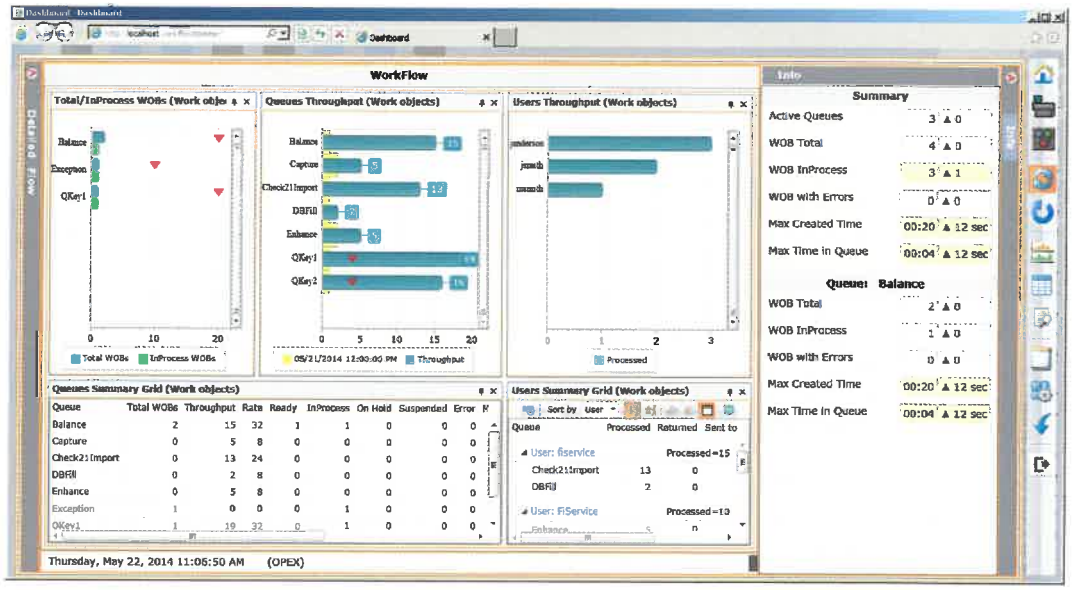


Figure 48 - Workflow Detailed View

Quick Workflow Monitor includes additional features that provide supervisors access to detailed information of the current system state, including a display of all objects currently in system and a list of objects within a specific queue. Within the object list display details about each item such as date created, and time arrived to the queue are maintained and tracked. Supervisors can view the images as well within that transaction. While viewing the image, Supervisors are able to view the OCR results, the history of the item as well as any identified errors.

With the ibml ImageTrac plug-in, WV Tax will also be able to view and monitor the scanning process within the *Quick* Workflow Monitor.

Quick Reports

The ability to provide data from the production and archival databases as well as data on the people who interact with them is a key management tool. Towards that end, *Quick* Modules comes complete with *Quick* Reports, a comprehensive reporting tool with over twenty standard reports. In addition, *Quick* Reports can be easily configured to accommodate custom report types generated by Fairfax Imaging or by the WV Tax. *Quick* Reports is designed around the Microsoft SQL Server Reporting Services. *Quick* Reports is designed to allow an operator to quickly and effectively generate reports based on a host of criteria.

A list of standard reports includes:

Recognition Reports:
Character Recognition Accuracy Detail Report
Character Recognition Accuracy Summary Report
Field Recognition Accuracy Detail Report
Field Recognition Accuracy Summary Report

Hand-Print Field Type Recognition Accuracy Report
Machine-Print Field Type Recognition Accuracy Report
CAR-LAR Recognition Performance Report
MICR Recognition Performance Report
Transaction Kill Rate Performance Report

Form Identification Reports:
Form Identification Accuracy Detail Report
Form Identification Accuracy Summary Report
Form Identification Method Accuracy Summary Report

Operator Performance Reports:
Transaction Balancing Operator Performance Report
Data Entry Operator Performance Report
MICR Data Entry Operator Performance Report
Inventory Aging Report by Queue

Audit Reports:
Data Change Tracking Report

In addition to these above standard reports, Fairfax Imaging will supply to WV Tax a select set of custom reports identified during Detail Design.

Generate IFP reports in *Quick* Modules' *Quick* Reports.

As identified by WV Tax, the desire is for the system to access and use legacy statistic data within the IBM/IFP system for reporting. In order to generate reports from the current IFP/IBM system using the new reporting module, *Quick* Reports, the data in the DB2 database system will be imported into the Microsoft SQL Server database system.

Fairfax Imaging will perform the following steps:

1. Migrate DB2 data to Microsoft SQL Server using the migration tool from Microsoft
    a. WV Tax will provide Fairfax Imaging with access to the DB2 database and provide the database schema
    b. Only records for the past 5 years will be migrated to SQL Server. WV Tax will ensure adequate storage is available in SQL Server
2. Develop custom reports per WV Tax request and layout specifications in SSRS using the newly migrated data in the SQL Server
3. Make newly developed reports available in the *Quick* Reports end-user application

Below are some examples of the commonly used reports within *Quick* Reports:

QUICK Reports

Batch Tally Detailed Report

From 4/1/2015 to 4/15/2015

Operator ID	Batch Number	Transport	Start Date/Time	End Date/Time	Elaspsed	# Transactions	# Pages	Batch Total
FfxScan	0241008143000035	01	4/10/2015 11:11:11 AM	4/11/2015 3:29:51 PM	28.00	10	40	$87.90
FfxScan	0241008143000040	01	4/10/2015 11:11:11 AM	4/11/2015 3:29:51 PM	28.00	5	20	$6,999.09
FfxScan	0241008143000042	01	4/10/2015 11:11:11 AM	4/11/2015 3:29:51 PM	28.00	10	40	$4,272.00
FfxScan	0241008143000043	01	4/10/2015 11:11:11 AM	4/11/2015 3:29:51 PM	28.00	10	40	$8,619.50
FfxScan	0241008143000044	01	4/10/2015 11:11:11 AM	4/11/2015 3:29:51 PM	28.00	10	40	$11,729.00
Totals	**5**					**45**	**180**	**$30,007.49**

QUICK Reports

Character Recognition Accuracy Detail Report

4/21/2015

Form Type		# Images Processed	# Characters Processed	# Characters Successfully Read	Character Accuracy Rate
CHECK	Current	38	1,761	1,688	95.85%
	YTD	78	3,552	3,437	96.76%
CIT103	Current	10	403	355	88.09%
	YTD	10	403	355	88.09%
FAB103	Current	9	374	333	89.04%
	YTD	9	374	333	89.04%
FPS103	Current	10	388	344	88.66%
	YTD	10	388	344	88.66%
IT40ES	Current	0	0	0	0.00%
	YTD	6	266	253	95.11%
IT6WTH	Current	0	0	0	0.00%
	YTD	9	44	26	59.09%
MVR103	Current	0	0	0	0.00%
	YTD	10	327	162	49.54%
PFCRST	Current	0	0	0	0.00%
	YTD	5	140	105	75.00%
ST103	Current	9	380	353	92.89%
	YTD	9	380	353	92.89%
TIF103	Current	0	0	0	0.00%
	YTD	10	423	421	99.53%
Total	*Current*	*76*	*3,306*	*3,073*	*92.95%*
	YTD	*156*	*6,297*	*5,789*	*91.93%*

Print Date: 4/22/2015 11:49:25 AM

FAIRFAX IMAGING,INC.

QUICK Reports

Data Entry Operator Performance Report

From 4/1/2015 to 4/22/2015

Operator ID	Queue Name	# of Keystrokes	# of Pages Processed	Work Hours	Keystrokes Per Hour	Pages Per Hour
BCarly						
	Qkey1	11	3	0.16	69.47	18.95
CJjohnson						
	Balance	20	1	0.08	240.00	12.00
CJohnson						
	Balance	30	2	0.17	180.00	12.00
JLafavor						
	Qkey2	6	1	0.06	102.86	17.14
Total		*67*	*7*	*0.47*	*143.57*	*15.00*

Print Date: 4/22/2015 3:37:18 PM

FAIRFAX IMAGING,INC.

QUICK Reports

Field Recognition Accuracy Detail Report

4/21/2015

Form Type		# Images Processed	# Fields Processed	# Fields Successfully Read	Field Accuracy Rate
CHECK	Current	38	266	221	83.08%
	YTD	78	546	461	84.43%
CIT103	Current	10	90	80	88.89%
	YTD	10	90	80	88.89%
FAB103	Current	9	81	72	88.89%
	YTD	9	81	72	88.89%
FPS103	Current	10	90	80	88.89%
	YTD	10	90	80	88.89%
IT40ES	Current	0	0	0	0.00%
	YTD	6	54	47	87.04%
IT6WTH	Current	0	0	0	0.00%
	YTD	9	9	1	11.11%
MVR103	Current	0	0	0	0.00%
	YTD	10	90	26	28.89%
PFCRST	Current	0	0	0	0.00%
	YTD	5	35	28	80.00%
ST103	Current	9	81	72	88.89%
	YTD	9	81	72	88.89%
TIF103	Current	0	0	0	0.00%
	YTD	10	90	89	98.89%
Total	*Current*	*76*	*608*	*525*	*86.35%*
	YTD	*156*	*1,166*	*956*	*81.99%*

QUICK Reports

Scanning Report

4/22/2015

Batch Type		Number of Batches	Number of Transactions	Number of Pages	Avg. Transactions per Batch	Avg. Pages per Transaction
Money	Current	0	0	0	0.00	0.00
	YTD	4	35	140	8.75	4.00
NoMoney	Current	0	0	0	0.00	0.00
	YTD	3	30	120	10.00	4.00
Remit	Current	0	0	0	0.00	0.00
	YTD	2	20	80	10.00	4.00
Total	*Current*	*0*	*0*	*0*	*0.00*	*0.00*
	YTD	*9*	*85*	*340*	*9.44*	*4.00*

QUICK Reports

Transaction Balancing Operator Performance Report

From 4/1/2015 to 4/22/2015

Operator ID	# of Transactions Balanced	Work Hours	Transactions Per Hour
admin	49	0.49	100.80
CJohnson	93	0.67	139.79
DBartlett	28	0.22	125.22
JLafavor	32	0.23	142.22

Quick Purge

Information related to document types, date scanned, etc. is stored in the *Quick* Modules systems database. *Quick* Purge is used to delete images and\or database information based upon date, and other types of parameters in order to maintain the health of the proposed system. This is an automated process and is configurable.

Once the purging process begins, it first determines which images need to be removed from the system. If the images reside in on-line storage it wipes them and frees up this space for use in continued production activities. It then wipes this information from the database. The information can be purged by date range if desired.

Quick Modules Studio (QMS)

This module is responsible for setting and configuring the entire *Quick* Modules system, in a highly intuitive, graphical, and user-manner. *Quick* Modules Studio, referred to as "QMS," is a Web-based administrative tool used to manage and develop the solutions required to properly implement *Quick* Modules. It serves as a centralized development environment that allows the development, testing, and deployment of applications within *Quick* Modules. Several features make QMS unique and tailor made for forms and remittance processing industry.

- As a thin client application, the development of applications can occur outside the production environment of *Quick* Modules. This allows developers to maintain the system without the need to interrupt production activities.
- They system allows the user to have multiple "builds" or environments. For example, oftentimes users required a development, test, and production environment. With QMS, the developer can easily maintain all three environments and at any time roll back to a previous build should the need arise.
- Designed to be intuitive, QMS offers a graphical workflow setup and design.
- Developers can maintain a library of user validations and rules that are common across all forms and/or applications.
- Within QMS, the user is allowed to set up all fields needed for recognition, as well as test the accuracy of the system for feedback and optimization prior to deployment.

QMS is the single location for all job setup - from forms and remittance processing to security for users, test environments to designing workflows. Designed for administrators and developers, QMS is a separate program with tools incorporated to save time and provide a technical, safe environment for creating new builds. Each "build," in turn, becomes a *Quick* Modules solution.

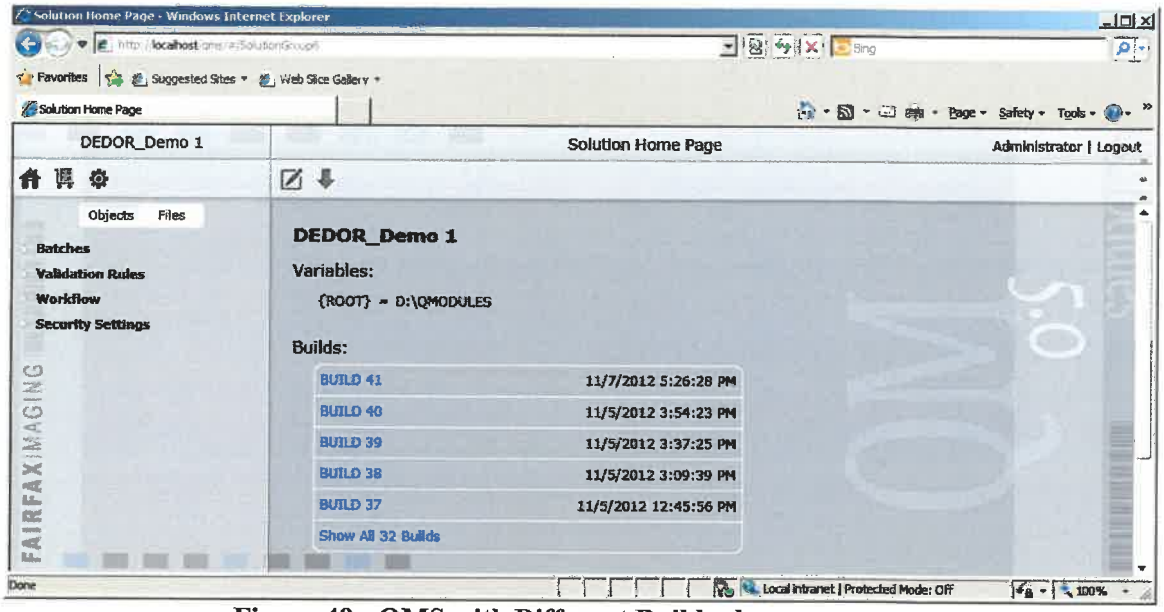


Figure 49 - QMS with Different Builds shown

QMS allows the system to save more than one build for *Quick* Modules. These builds contain the many rules and criteria needed to run the *Quick* Modules system and are accessed through the Home Page of QMS. Everything from form fields to validation rules, what constitutes a batch to audit reporting, security settings to step-by-step workflow definition. Current builds are in production while previous builds can be saved and accessed later on, if needed. One build could be the test environment; another could be the production environment. It is easy to transition to an older, different build, when necessary.

When a build is selected QMS informs the administrator of the build number loaded and not the current deployed solution. The administrator can examine the previous builds without affecting the deployed solution, in production, test, or development environments. This allows the administrator to freely examine previous forms or rules without deploying the solution. If required, any previous builds can be re-deployed to replace the current deployed solution. Since QMS is a browser-based application, it allows administrators to load multiple windows at the same time. This flexibility will allow administrators to load multiple solutions at the same time, or multiple builds at the same time, in order to review and compare any changes made.

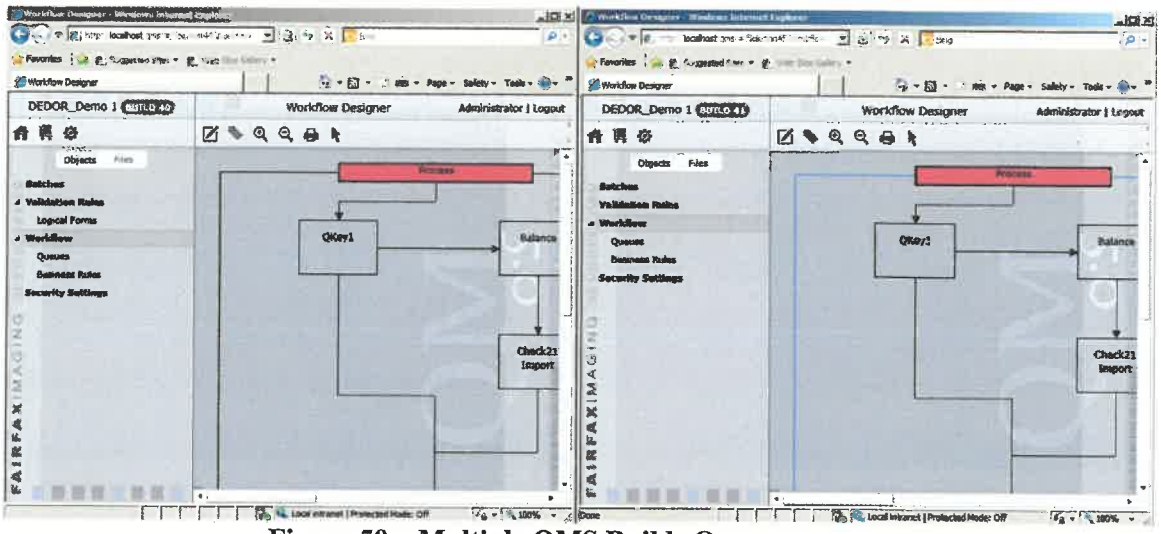


Figure 50 – Multiple QMS Builds Open

In QMS, administrators have the ability to export and import solutions as well. For example, a previous build from the productions environment can be selected, exported, and then imported into a test environment in order to perform additional testing without affecting the production environment. The export feature in QMS combines all necessary files, including forms, rules, workflow, and creates a single file that can be imported into another *Quick* Modules environment. The exported file can also be sent to Fairfax Imaging for troubleshooting purposes.

As you work on solutions (editing validation rules, adding forms, adjusting queues, etc.), the system is not affected until you deploy the newly configured solution. In this way, any changes made are not in effect until the System Administrator decides that all is well and the changes can be implemented, after testing, etc. Further caution is encouraged by having a save and restore feature for deployment. The system can be saved and restored later on if the new configuration needs to be discarded.

Validation Rules

Validation rules and math blocks are easily setup, many without the need of programming and become libraries to the application(s) that can be selected and maintained within the system. For each form and field within the form, the user is able to set the specific business rules associated with that dataset. Should a customized rule be required, it is easily added to the table and can be selected. All business rules are stored as libraries for future and common use across all applications.

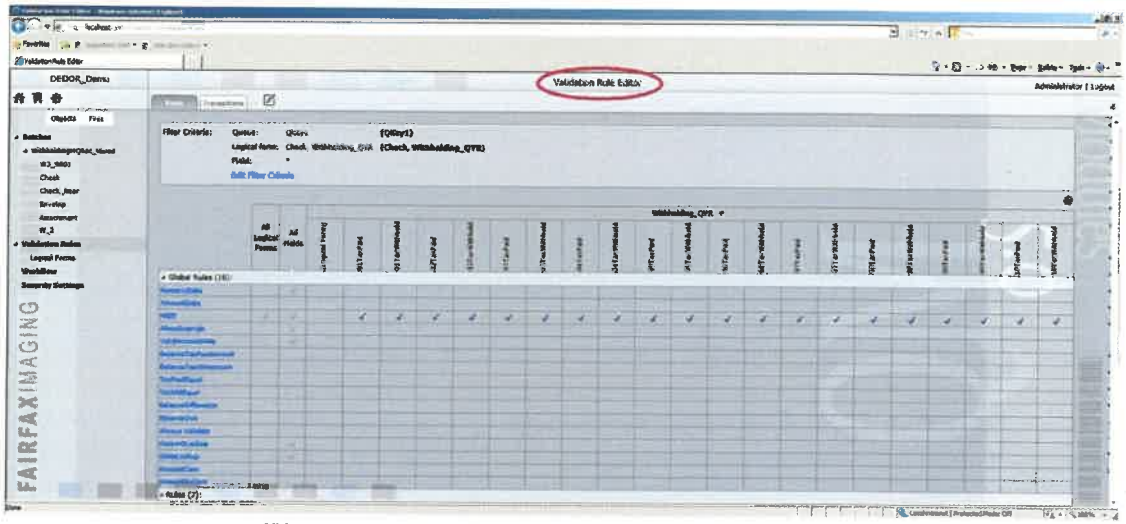


Figure 51 - Validation Rules Example

Because it is Web-based and is used in an Internet browser, the QMS user-friendly interface is easy to manipulate. You can also have multiple pages open at one time. For example, you can have two forms loaded and be able to copy the fields from one form page to the other form page. Another example of its ease of use is the ability to test the recognition on a form while designing the form.

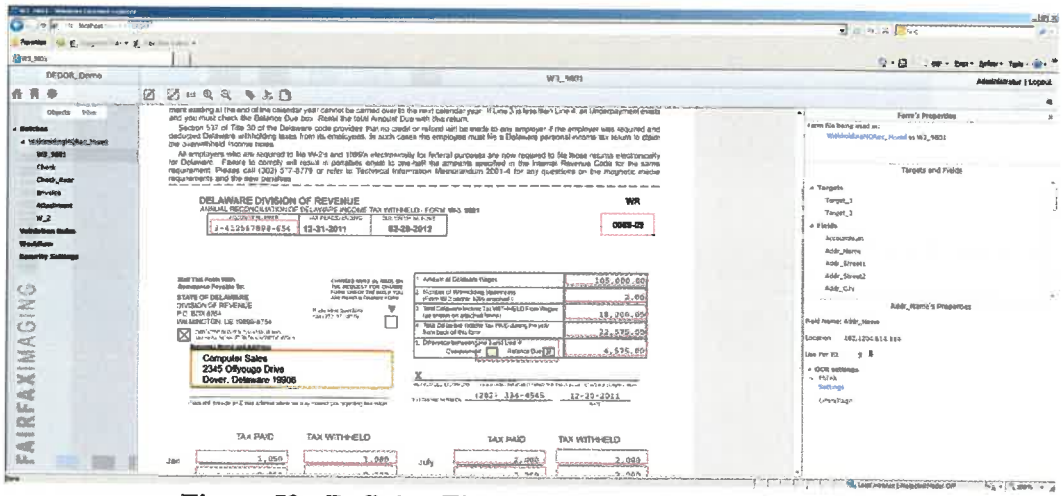


Figure 52 - Defining Fields for Recognition within QMS

Graphical Workflow Management

You can also develop and manage the *Quick* Modules Workflow in QMS. This includes creating queues for work and rules associated with each queue and workflow. The Workflow Designer provides access to everything needed to create a workflow. You can add processes easily and edit an existing process. The designer provides a graphical display of the logically flow of the system. At the highest level, the designer can link defined processing groups for the intended flow of the work through the system.

Queues are defined that allow the system to route and segment work based upon the needs of the client. For example, a user may have multiple queues that consist of a Balancing Queue

consisting of work specific to the balancing and validation of check amounts for quick verification in order to speed deposit as well as any number of form queues specific by form type to ensure operators work similar form types for speed of entry. Other queues may be created for such specific tasks as W2/1099 entry/validation, correspondence review, etc. Using the intelligence of the *Quick* Modules QMS development environment, the user can set a virtual batching process that allows intermixed form scanning while segmenting the work to the users electronically. The system can re-associate all the transaction into batches prior to output.

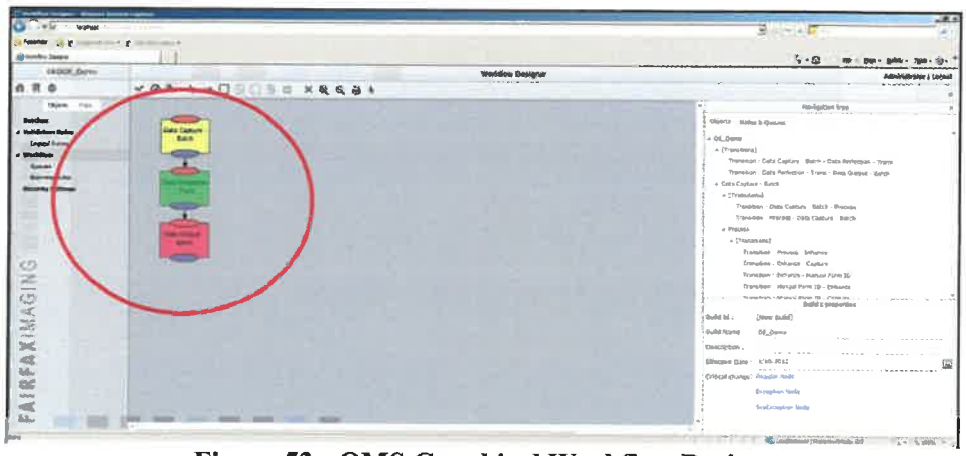


Figure 53 - QMS Graphical Workflow Design

Within each process, the developer can further define the exact business rules and flow of work through the system based upon as set of rules. Because it is a graphical interface, the workflow is defined by linking processes to create the overall workflow design. The screen below shows just one process in the above three processes defined.

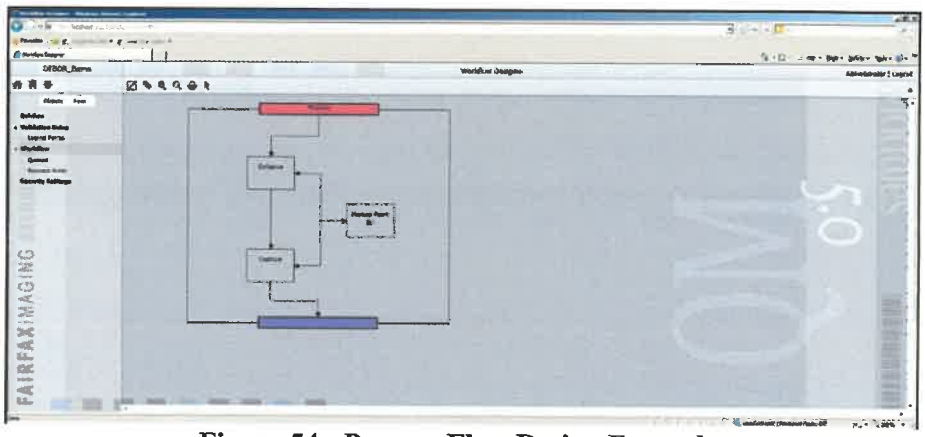


Figure 54 - Process Flow Design Example

The process in this example shows the scanned document going through *Quick* Enhance and then, through *Quick* Capture if the form is properly identified by the recognition engine. If the form is not automatically identified, it must go through the manual identification process first before going into *Quick* Capture. This is just one process in the workflow. Workflows can have several processes in them. All of this is managed and defined in QMS.

4.5.2. Can you process envelopes with tax returns and remittances? Describe the process.

Vendor Response:

Yes, envelopes are processed with tax returns. *Quick* Modules provides a singular approach to the processing of all form types, regardless of whether these transactions consist of Tax, checks, correspondence, envelopes, w2/1099, etc., providing a common architecture to maximize productivity and reduce costs.

An envelope can be added as another form type and can be routed through the workflow, as part of a transaction, using business rules created in the web-based administrative tool called *Quick* Modules Studio (QMS).

4.5.3. With what frequency do you provide software upgrades?

Vendor Response:

Our product undergoes periodic revisions, and our maintenance clients can obtain these upgrades as they are available. We typically provide a release once each year. This frequency of release allows our clients to install, test, and roll-out the new release within disruption of their operation. Should at any time during the year a bug be identified that is critical to the operation of our system, Fairfax Imaging will provide an interim release to our clients to address the issue.

4.5.4. Describe your data entry features and functionality, for financial reporting and deposit configuration.

Vendor Response:

Quick Key is the data entry web-based application. *Quick* Key is the most versatile and comprehensive data entry and correction product on the market. Within the *Quick* Key module, the operator will perform all data entry and balance function for all remittance and forms. The proposed solution is queue-based, therefore, the operator can select a queue in *Quick* Key in order to perform certain duties, such as the Balance queue, for balancing payment transactions. Permission to workflow queues is required.

4.5.5. Describe the system's ability to capture, display and archive images in color, grayscale, or black and white.

Vendor Response:

The proposed ibml ImageTrac 6400 scanners will scan documents and provide all types of images required to the *Quick* Modules workflow, including color, gray scale, or black and white. Within the *Quick* Modules applications WV Tax can select what image type to display for the operator, such as displaying a color check image in *Quick* Key, and archiving only grayscale or

black and white images. Black and white (Tiff) images are required by the capture engine, for full page and checks for Check21 deposits. WV Tax will have the flexibility to display and archive any image type provided by the ImageTrac scanners.

4.5.6. Describe your image display capabilities and operator display options.

Vendor Response:

Within the *Quick* Modules applications WV Tax can select what image type to display for the operator, such as displaying a color check image in *Quick* Key and black and white image for full page or stub. This display capability is available within the same transaction and for each form type. WV tax can select in what application and what queue to display a specific image type, all configured within the web-based administrative tool called *Quick* Modules Studio (QMS).

Section 4, Subsection 4.6:

4.6. Goal/Objective 6: SECURITY/ COMPLIANCE/ACCOUNTABILITY/ AUDIT

The Department desires to have a secure system with more updated audit process. The system must meet federal and state requirements. Please explain how your solution will accomplish this goal in the following:

4.6.1. Describe the security levels, features, and functionality of your proposed solution.

Vendor Response:

Security levels in the proposed solution can restrict user access to a queue, form, or a field on a form. Users are assigned to groups with permissions to workflow queues and *Quick* Modules applications. Validation rules can further restrict access at the field levels.

4.6.2. Describe how and who supports and maintains the system security.

Vendor Response:

The system security is maintained within the web-based administrative tool called *Quick* Modules Studio (QMS). User authentication will be provided by the WV Tax's Active Directory (AD). Once the users are authenticated access to applications and queues are granted based on AD groups. WV Tax will have full access to manage and maintain the system security.

4.6.3. What auditing and logging mechanisms are used, including password resets and expiration?

Vendor Response:

The proposed solution features a dedicated Auditing service that keeps track of all transactions and access to the system. *Quick* Modules provides an audit log to track and/or record all system

activity. All image manipulation functions are part of the audit trail that remains stored in the central system database for review and reporting downstream.

Quick Modules keeps a historical database table that contains ALL actions undertaken on the transaction, on a module by module basis, to include the following information:

- Data captured and entered
- Date and time of transaction check in
- Date and time of transaction check out
- Operator ID
- Length of processing

Auditing of password resets and expiration is handled by WV Tax's Active Directory system.

4.6.4. What encryption methods are used, if any?

Vendor Response:

Securing sensitive information within the *Quick* Modules system, such as electronic tax return information, is performed through encryption of the stored data (data at rest) using a dedicated encryption service and SQL database using MS SQL Server encryption, and through encryption of the data in transit using a secure connection (SSL) to the web applications running on the IIS (Web) server(s). The dedicated encryption service is also responsible for ensuring the data and images exchanged by authorized services, running on the servers, is also encrypted in transit.

The *Quick* Modules system uses secure protocols throughout the system to ensure the confidentiality and integrity of Federal Tax Information (FTI) data, both at rest and in transit. Data within the *Quick* Modules system is encrypted following Federal Information Processing Standard (FIPS) Publication 140-2 standards (FIPS PUB 140-2). Fairfax Imaging will comply with IRS Publication 1075 regarding the handling of FTI by Federal, State, and Local Entities, and the systems they reside on.

A dedicated encryption service ensures data in transit within the *Quick* Modules system is secure, for both data and images, and data accessed by users is secured through encryption of the data in transit using a secure connection (SSL) to the web applications running on the IIS (Web) server(s).

4.6.5. What types of authentication are supported?

Vendor Response:

User authentication is supported by WV Tax's Active Directory system. If Active Directory is not available the proposed solution provides an internal user database for authentication.

4.6.6. Is there central administration for security? How long does it take to add a new user?

Vendor Response:

The system security is maintained within the web-based administrative tool called *Quick* Modules Studio (QMS). Once security groups for the *Quick* Modules solution are established adding new users to the system is a simple and fast process. New users are added within WV Tax's Active Directory system and assigned to the appropriate group. Once authenticated the users will only have access to the applications and queues they have access to, based on group membership.

4.6.7. Describe your proposed system's compliance with current government and legal standards for protecting information.

Vendor Response:

The *Quick* Modules system uses secure protocols throughout the system to ensure the confidentiality and integrity of Federal Tax Information (FTI) data, both at rest and in transit. Data within the *Quick* Modules system is encrypted following Federal Information Processing Standard (FIPS) Publication 140-2 standards (FIPS PUB 140-2). Fairfax Imaging will comply with IRS Publication 1075 regarding the handling of FTI by Federal, State, and Local Entities, and the systems they reside on.

4.6.8. What audit trails are provided with your proposed solution?

Vendor Response:

The proposed *Quick* Modules solution includes an Auditing service. *Quick* Modules will detect unauthorized attempts to access the system without being properly authenticated. Within the audit trail identification, the client workstation at which access was attempted, date and time are provided for reporting purposes.

Quick Module*s* provides an audit log to track and/or record all system activity. All image manipulation functions are part of the audit trail that remains stored in the central system database for review and reporting downstream.

Quick Modules has a number of events that can be tracked for auditing. In addition to security events, the system can track changes to the configuration, changes to the data (as it gets captured and keyed), as well as changes to the transaction structure (form type change, page added, page deleted, page moved, transaction deleted).

4.6.9. Discuss what system and user activities can be monitored and audited with your proposed solution.

Vendor Response:

Quick Modules keeps a historical database table that contains ALL actions undertaken on the transaction, on a module by module basis, to include the following information:

- Data captured and entered
- Date and time of transaction check in
- Date and time of transaction check out
- Operator ID
- Length of processing

Vendor Response: Section 4, Subsection 4.7:

4.7. Goal/Objective 7: IMPLEMENTATION, DOCUMENTATION, AND TRAINING

The Department desires to have a vendor implement a system and train employees, plus provide training and implementation documentation that pertains to this system. Please explain how this goal will be met.

4.7.1. Provide a list and brief description of all documentation, training materials, classes, instruction and time schedules provided with your proposed solution.

Vendor Response:

Fairfax Imaging will provide the following documentation as part of the project.

Documentation

End-user and supervisor documentation includes the following:

- Operations Manuals
- System Flow Diagrams
- Hardware/Software Installation and Maintenance
- Work Flow Diagrams
- Document Preparation Specifications
- Any documentation provided by the hardware scanner or software manufacturer.
- Data Dictionary
- *Quick* Modules System Administration Manual
- *Quick* Key Administration Manual
- *Quick* Web Administration Manual
- *Quick* Modules Studio Manual
- *Quick* Monitor User Manual
- *Quick* Review User Manual
- *Quick* Report User Manual
- *Quick* Key User Manual
- *Quick* Scan User Manual
- *Quick* Web User Manual
- *Quick Check 21* User Manual

As part of the project delivery processes the following are the written deliverables that will be provided to WV Tax.

Project Management Deliverables:

Project Plan (Updated weekly throughout project)

Weekly Progress Status Reports; including tasks accomplished/planned, tracking of issues with resolution, and risk register.

Training Plan

Communication and Change Control Plan

Acceptance Test Plan

Risk Management Plan

Technical Deliverables:

Detail Design Document (including interfaces)

User Library/Exit Routines Functional Description

System Documentation

System Deliverables:

Training Material Deliverable

End User Documentation

System Test Plan

Final Project Report

Training Plan

Fairfax Imaging Training Manager in conjunction with WV Tax Operation staff will prepare a custom training plan to suit the specific project requirements. This training will consist of training for:

- Operation staff
- Supervisor and Management (as needed) staff
- Technical and System Support staff (consisting of system configuration and infrastructure layout/build necessary to support the system and allow WV Tax to implement new forms, workflows, and business rules.)

Training hours will be Monday through Friday, during normal business hours.

Fairfax Imaging places a great deal of emphasis on training, because we believe that the system will only produce the expected results when operated and administered by well-trained personnel:

- **Operators:** Operator training includes methods of logging in, system initiation, and logging off, and also day-to-day operation, such as data balancing, key correction, scanning, exception handling, and other relevant information necessary for the proper operation of the system.
- **Supervisors/Management:** Supervisor training includes operator-level training, high-level system overview, and training of the supervisory tools available, including dashboard status, reporting and monitoring tools.

- **Technical and System Support:** System technical and support training will cover operational aspects of the scanning equipment, including use of systems software and any application software developed for, or provided under, this contract. This training will also include configuration and setup of the system to allow WV Tax to add new forms, users, workflows and other technical functions to the system.
- **Train-the-Trainer:** Fairfax Imaging believes strongly in providing Train-the-Trainer instruction in both operational and technical support training for as many WV Tax personnel as required.

4.7.2. What media format will you use to deliver the documentation that you provide with your solution?

Vendor Response:

All documentation will be delivered in MS Word Format.

4.7.3. What skill sets are required for technical support of your proposed solution?

Vendor Response:

Quick Modules Studio (QMS) is a Web-based administrative tool used to create, modify, and support the applications for tax operations. The skills and experience required to set up a new tax / application using QMS are as follows:

- Intermediate to advanced Windows concepts
- Graphical programs understanding
- Microsoft .NET
- Understanding of tax operations and requirements for WV Tax
- Understanding of QMS and *Quick* Modules workflow/system

It should be noted that QMS allows configurations to be created and applied. The possible use of a custom User Exit to perform a unique business rule may be required.

4.7.4. Provide a detailed description of the implementation process, including testing and a sample implementation schedule. Identify individual tasks, time requirements, and responsibilities of each party.

Vendor Response:

The proposed implementation approach consists of three phases, each with a set of forms (tax types) as agreed upon by WV Tax and Fairfax Imaging. The general approach outlined by WV Tax within the RFP consists of twenty (20) form types within Phase One; 103 forms types within Phase Two and 107 form types within Phase Three.

During the Detail Design phase, Fairfax Imaging and WV Tax will review the inclusion of these form types and may modify the number within each phase to better accommodate configuration of the system (grouping similar forms together for example) and testing. During the implementation process, form modifications to accommodate legislative changes can be included provided the new form layouts are known in advance for configuration purposes.

As part of the proposed project, there are a number of Deliverables in which Fairfax Imaging will provide for the successful implementation of the scope of the project as defined herein to this SOW. Fairfax Imaging will provide the following deliverables to WV Tax as part of the proposed project, along with any others identified within the RFP by WV Tax.

Deliverable	Description
Project Management	Fairfax Imaging will provide Project Management oversight to its portion of the project. The FFX Project Manager is responsible for reviewing the State's data processing environment and capabilities as they relate to the Front End Processing Project. The project plan reflects the collection of this information and will be used during the development of the Detail specifications. The Project Manager will coordinate all Fairfax activities to complete the plan of implementation and document the progress and activities completed during the course of the project.
Business Process Analysis	This effort will consist of performing analysis of WV Tax business process and defining business strategies, business practices, confirming implementation strategies, organization needs, and technical needs of the process improvement initiative in conjunction with WV Tax staff to address the goals and objectives of the project.
Project Plan	The Fairfax Imaging Project Manager is responsible for cooperatively developing a project plan in conjunction with WV Tax to meet the deliverable dates for all aspects of the proposed system. This is updated and maintained during the life of the project. The Project Plan consists of the Gant chart and document that details the order of implementation and strategy to deliver the system. The Project Plan will include, but not limited to tasks for Design, Development, Implementation, Testing, Training, Conversion, and Acceptance.
Weekly Status Reports	The Fairfax Imaging Project Manager will provide Weekly Status Reports. This is part of the Communication Plan Developed by the Project Manager and delivered to WV Tax for use in weekly discussions about the progress of the project.

Deliverable	Description
Training Plan and Training Materials	This is a collection of document and materials that include Training documents, course outlines, presentation material, and training videos developed during WV Tax training for ongoing reference. The training plan specifically addresses the delivery of these materials to System Administrators, Lead Operators, Operators, and Technical personnel.
Communications and Change Management Plan	The Fairfax Imaging project manager is responsible for (with WV Tax approvals) developing the Communications and Change Management Plan procedures, forms and methodology. The project manager is responsible for the content and delivery of approved changes.
Risk and Issue Management Plan	The Risk and Issue Management Plan addresses schedule, process, and content. The Project Manager assesses all of these to determine what risks are present that would compromise the project deliverables and develops a mitigation strategy to avoid/recover should any of these risks develop.
Software Change Control Process Document	This document addresses the agreed upon rollout process for new or updated software deliveries during project implementation throughout the phases.
Detail System Design Specification	The Detail Design addresses the specific details on how the provided software will address the business and technical requirements for WV Tax along with the scope contained within the RFP. Included within this are the details about configuration, database design, configuration, custom user exits, interface content, and methodology with external systems, service modules, implementation details of business rules and application object presentations.
Forms Redesign Consultation	Forms redesign consultation including recommendations and best practices for achieving recognition data elements is provided as part of the overall project on an as needed basis.
System Documentation (Administrative and User Manuals)	All vendor documents will be provided for both Fairfax software and for Third Party items such as the IBML ImageTrac scanners integrated into the solution. *Quick* Modules User Manuals, Programmer Guides, and System Administrator Manuals are provided. For ImageTrac scanners user manuals normally provided by ibml will be included. This material is provided concurrently with the delivery of training and will consist of the necessary materials to operate and maintain the proposed solution.

Deliverable	Description
System Test Plan and Testing	This document specifies what is to be tested and how that testing is to be done which includes: test document preparation, script development, interface testing, what is expected to succeed, and what is expected to create an exception. This testing is performed utilizing both Fairfax and WV Tax personnel and monitored by the Project Manager which reports the success or failure of each test element. This report drives corrective updates and retesting.
Final Project Report	This report is produced at the conclusion of the project. It contains the extent and how the project objectives have been met and any recommendations. The report is delivered upon final acceptance as detailed in the project plan.
Maintenance and Support	After system acceptance and during the warranty period, Fairfax provides on-going support of the installation. This includes, but not is limited to: • Monday – Friday, 8:00 A.M. to 5:00 P.M. call/e-mail support and dispatch of Fairfax and ibml resources • Prioritization of support requests • Resolution of problems • Off-Site support via VPN (to test system) or WEB based with desktop sharing. • System defect notification and resolution • Change order requests • Version control of supplied updates and modifications. • Fairfax product upgrade notifications • Third party product upgrade notifications
Development, Test and Production Regions	Fairfax will deliver a Development and Test system to support the Production system. It is anticipated that both are Virtual Machines and have the same capabilities but differ in external system interfaces. Changes, updates, and QA testing occur within the Test system and are migrated into production once these are deemed ready for production. The test environment can be setup for separate training for WV Tax staff.
Quick Modules Licensed Software	Includes all licensed software of *Quick* Modules as outlined within this SOW. Configuration of the *Quick* Modules software is performed by Fairfax to produce the features and product configurations to meet the specifications contained in the Detailed Design Specifications. At the completion of this activity the On-Site installation will begin. Unit testing of each element is performed prior to any on-site installation.

Deliverable	Description
Application configuration and Setup Installation Services	This includes the following Software elements:
	• *Quick* Modules Service Applications
	• Database Schemas installation and server/workstation configuration
	• SoftTrac (IBML Scanners) development
	• Check 21 Integration to the bank of deposit
	• Interface into existing legacy systems (tax system)
	• Integration into WV Tax Network, SAN, etc.
	• All elements are unit tested and end to end tested and tuned for best performance.
IBML Scanner Installation	• Installation of all proposed ImageTrac scanners will be performed. This includes attending the IBML Factory Acceptance Test (FAT) test prior to the shipment of scanners to WV Tax.
Production Support	• Production Support activities during parallel operation and transition to the proposed system will be provided. The full implementation staff will be on-site during assigned periods to provide mentoring, QA activities, corrective updates (if any) during each phase of the project as well as upon completion and acceptance of the system.
Reports	• Fairfax Imaging will supply its standard statistical reports as defined within the Detail Design. Customized reports will be defined within the Detail Design portion of the project and provided by Fairfax Imaging.

Project Plan

The scope of the project is inclusive of a select set of tax/form types that offers a phased approach to the implementation which minimizes risk. With an anticipated start schedule of the project of July 1, 2017, we offer below a Project Plan depicting the tasks for completion.

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
West Virginia Department of Revenue	**387.46 days**	**Thu 7/6/17**	**Mon 12/31/18**		
Project Management Activities	**6 days**	**Thu 7/6/17**	**Thu 7/13/17**		
Introductory Conference Call	1 hr.	Thu 7/6/17	Thu 7/6/17		FFX PM,WVDOR PM
Deliver Agenda for Kick Off Meeting	1 hr.	Thu 7/6/17	Thu 7/6/17	2	FFX PM
Onsite Project Kickoff Meeting	1 day	Thu 7/6/17	Fri 7/7/17	3	FFX PM,WVDOR PM
Project Management Documents	**5.88 days**	**Thu 7/6/17**	**Thu 7/13/17**		
Work Plan	5 days	Thu 7/6/17	Thu 7/13/17	2	FFX PM
Project Plan (Narrative)	2 days	Fri 7/7/17	Tue 7/11/17	4	FFX PM
Communications & Change Management Plan	4 hrs.	Tue 7/11/17	Tue 7/11/17	7	FFX PM
Software Change Control Process Document	4 hrs.	Tue 7/11/17	Wed 7/12/17	8	FFX PM
Risk and Issue Management Plan	4 hrs.	Wed 7/12/17	Wed 7/12/17	9	FFX PM
Set up a call with client to discuss project strategies (project plan, communications, status reporting and delivery)	2 hrs.	Wed 7/12/17	Wed 7/12/17	10	FFX PM
Design Schedule (MS Project)	1 day	Thu 7/13/17	Thu 7/13/17	11	FFX PM
WVDOR's Bank (CHECK 21)	**0.38 days**	**Tue 7/11/17**	**Tue 7/11/17**		
Schedule Kick Off with Bank (Check 21 implementation) Requirements, Testing schedule	2 hrs.	Tue 7/11/17	Tue 7/11/17	4FS+2 days	FFX PM,WVDOR PM
Request Bank Requirements for x.937 file 7 Connection Protocol	1 hr.	Tue 7/11/17	Tue 7/11/17	14	FFX Engineer
Phase I Implementation	**157.71 days**	**Fri 7/7/17**	**Tue 2/13/18**		
Phase 1 Requirements and Design	**34.22 days**	**Fri 7/7/17**	**Thu 8/24/17**		
Design Phase	**34.22 days**	**Fri 7/7/17**	**Thu 8/24/17**		
Business Process Analysis/Requirements	**14.21 days**	**Fri 7/7/17**	**Thu 7/27/17**		
Architectural Review with WV Tax IT team, server requirements	2 hrs.	Fri 7/7/17	Fri 7/7/17	4	FFX Engineer, WVDOR IT
Collect Business Process Requirements	**6.96 days**	**Fri 7/7/17**	**Tue 7/18/17**		
Discuss Phase 1 Form design, versions, Barcodes (1D, 2D), validation rules	3.46 days	Fri 7/7/17	Wed 7/12/17	20	FFX PM,FFX BA,FFX Engineer
Batch Integrity Rules, Tax Type Business Rules	1 day	Wed 7/12/17	Thu 7/13/17	22	FFX PM,FFX Engineer, FFX BA
DLN assignment	1 day	Thu 7/13/17	Fri 7/14/17	23	FFX PM,FFX Engineer, FFX BA
GenTax & Image Storage Output requirements	1 day	Thu 7/13/17	Fri 7/14/17	23	FFX PM,FFX Engineer, FFX BA

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
Check 21	**1 day**	**Fri 7/14/17**	**Mon 7/17/17**		
Check Endorsement, timeframes of sending ICLs to bank	1 day	Fri 7/14/17	Mon 7/17/17	25	FFX PM,FFX BA,FFX Engineer
Check 21 Requirements, Manual checks process, Foreign Checks	1 day	Fri 7/14/17	Mon 7/17/17	25	FFX PM,FFX BA,FFX Engineer
WVDOR custom specific rules, dollar amounts, Describe testing and review process	1 day	Fri 7/14/17	Mon 7/17/17	25	WVDOR SMEs, FFX BA
Reporting Requirements, WV Tax to provide reporting samples	0.5 days	Mon 7/17/17	Tue 7/18/17	29	WVDOR SMEs, FFX BA
Application Security - Active Directory and Database Security	**1 day**	**Tue 7/18/17**	**Wed 7/19/17**		
Discuss Application Users and Functions, Groups - QMS Lite	1 day	Tue 7/18/17	Wed 7/19/17	21	FFX BA
Application Database Security	1 day	Tue 7/18/17	Wed 7/19/17	21	FFX BA
Application security assessment and validation of secured access to data elements and stored images.	1 day	Tue 7/18/17	Wed 7/19/17	21	
Configuration Phase - Documentation	**7 days**	**Tue 7/18/17**	**Thu 7/27/17**		
Systems Interface Plan and Design Specifications Document	1 day	Tue 7/18/17	Wed 7/19/17	21	FFX BA,FFX PM,FFX Engineer
Detailed Acceptance Test Plan and Testing Results	1 day	Wed 7/19/17	Thu 7/20/17	36	FFX BA,FFX PM,FFX Engineer
Detailed IBML Equipment Installation and Testing Plan	1 day	Thu 7/20/17	Fri 7/21/17	37	IBML
Equipment Deployment Plan	1 day	Fri 7/21/17	Mon 7/24/17	38	FFX BA,FFX Engineer, FFX PM
COTS Deployment Plan	1 day	Mon 7/24/17	Tue 7/25/17	39	FFX BA,FFX PM,FFX Engineer
Comprehensive Training Plan, Training Materials and Training Curriculum	1 day	Tue 7/25/17	Wed 7/26/17	40	FFX Trainer
End User Support Plan	1 day	Wed 7/26/17	Thu 7/27/17	41	FFX BA,FFX PM,FFX Engineer
Review IBML Scanner Requirements	**11 days**	**Tue 7/18/17**	**Wed 8/2/17**		
IBML Database Setup	3 days	Tue 7/18/17	Fri 7/21/17	21	IBML
Batch Composition	**3 days**	**Fri 7/21/17**	**Wed 7/26/17**		
Setup scanner jobs based on design of proposed batch types	1 day	Fri 7/21/17	Mon 7/24/17	44	IBML
Request sample images from propose batch types	1 day	Mon 7/24/17	Tue 7/25/17	46	IBML
Request sample scanner database from propose batch types	1 day	Tue 7/25/17	Wed 7/26/17	47	IBML
DLN requirements	1 day	Wed 7/26/17	Thu 7/27/17	48	IBML,FFX PM,WVDOR SME,FFX Engineer
Define Job Alerts	2 days	Thu 7/27/17	Mon 7/31/17	49	WVDOR SMEs
Define Form List with Barcode values, misc. forms with barcodes or MICR lines	1 day	Mon 7/31/17	Tue 8/1/17	50	IBML

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
Define Barcode Requirements - 1D (3of9), 2D (PDF417), table field lengths	1 day	Tue 8/1/17	Wed 8/2/17	51	IBML
Reiterative Design Specification Changes	5.01 days	Wed 8/2/17	Wed 8/9/17	52	FFX PM,WVDOR SMEs, FFX Engineer
Final Updates and Deliver Draft Design Document	5 days	Wed 8/9/17	Wed 8/16/17	53	FFX PM
Design Review with WV DOR	1 day	Wed 8/16/17	Thu 8/17/17	54	FFX PM,WVDOR PM
Deliver Final Design Document with updated changes	5 days	Thu 8/17/17	Thu 8/24/17	55	FFX PM,WVDOR PM
Obtain Final Acceptance on Detail Design Document	**0 days**	**Thu 8/24/17**	**Thu 8/24/17**	**56**	**WVDOR PM**
System Components Procurement	**41.5 days**	**Wed 8/2/17**	**Thu 9/28/17**		
Hardware Readiness	**41.5 days**	**Wed 8/2/17**	**Thu 9/28/17**		
IBML Scanner	**35.5 days**	**Wed 8/2/17**	**Wed 9/20/17**		
FAT Test #1 on 2 IBMLs In Birmingham, AL	2 days	Wed 8/2/17	Fri 8/4/17	43	IBML,FFX PM,FFX Engineer
Delivery of Scanners	1 day	Fri 8/4/17	Mon 8/7/17	61	IBML
Scanner Installation, Setup of DEV, TEST and PROD IBML Database Environment	**30.5 days**	**Mon 8/7/17**	**Mon 9/18/17**		
New Scanner #1 Installation	9 days	Mon 8/7/17	Fri 8/18/17	62	IBML
Configure SoftTrac Alerts, barcodes, logging directories	1 day	Fri 8/18/17	Mon 8/21/17	64	IBML
FAT Test #2 Onsite	20 days	Mon 8/21/17	Mon 9/18/17	65	IBML,FFX PM,FFX Engineer
Operator Training on IBML	0.5 days	Mon 9/18/17	Mon 9/18/17	66	IBML,DRA Ops
DRIU	**2 days**	**Mon 9/18/17**	**Wed 9/20/17**		
Install DRIU and configure for all 3 environments	1 day	Mon 9/18/17	Tue 9/19/17	63	
Provide Training to WVDOR staff on DRIU	1 day	Tue 9/19/17	Wed 9/20/17	69	IBML
IBML Scanner Install & Upgrade, Acceptance Complete	0 days	Wed 9/20/17	Wed 9/20/17	70	
Q/Review Exception Scanners and workstation Installed	3 days	Wed 9/20/17	Mon 9/25/17	71	FFX Engineer
Quick Modules Client applications installed on Operator Workstations	3 days	Mon 9/25/17	Thu 9/28/17	72	FFX Engineer
Hardware Readiness Complete	0 days	Thu 9/28/17	Thu 9/28/17	73	
Form Design & Batch Composition	**21 days**	**Wed 7/12/17**	**Thu 8/10/17**		
Provide Production Like TEST Images and TEST Batches of all form versions	1 day	Wed 7/12/17	Thu 7/13/17	22	WVDOR SME
Provide Test Scripts	20 days	Wed 7/12/17	Wed 8/9/17	22	WVDOR SMEs
Phase 1 Form Templates	**20 days**	**Thu 7/13/17**	**Thu 8/10/17**		
Phase 1 Forms	**20 days**	**Thu 7/13/17**	**Thu 8/10/17**		
CNF-120-2017	1 day	Thu 7/13/17	Fri 7/14/17	76	FFX Form Designer
CNF-120ES-2015	1 day	Fri 7/14/17	Mon 7/17/17	80	FFX Form Designer
CNF-120EXT-2015	1 day	Mon 7/17/17	Tue 7/18/17	81	FFX Form Designer
CNF-139-2016	1 day	Tue 7/18/17	Wed 7/19/17	82	FFX Form Designer
CNF-200CU-2017	1 day	Wed 7/19/17	Thu 7/20/17	83	FFX Form Designer
GenTax Voucher	1 day	Thu 7/20/17	Fri 7/21/17	84	FFX Form Designer

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
IT-140ES-2010	1 day	Fri 7/21/17	Mon 7/24/17	85	FFX Form Designer
SPF-100ES-2015	1 day	Mon 7/24/17	Tue 7/25/17	86	FFX Form Designer
SPF-100EXT-2017	1 day	Tue 7/25/17	Wed 7/26/17	87	FFX Form Designer
WV-100V-2017	1 day	Wed 7/26/17	Thu 7/27/17	88	FFX Form Designer
WV-120V-2017	1 day	Thu 7/27/17	Fri 7/28/17	89	FFX Form Designer
IT-140-2017	1 day	Fri 7/28/17	Mon 7/31/17	90	FFX Form Designer
IT-140NRC-2017	1 day	Mon 7/31/17	Tue 8/1/17	91	FFX Form Designer
IT-140V-2017	1 day	Tue 8/1/17	Wed 8/2/17	92	FFX Form Designer
IT-141-2017	1 day	Wed 8/2/17	Thu 8/3/17	93	FFX Form Designer
IT-141ES-WEB	1 day	Thu 8/3/17	Fri 8/4/17	94	FFX Form Designer
IT-141EXT-2017	1 day	Fri 8/4/17	Mon 8/7/17	95	FFX Form Designer
IT-141V-2017	1 day	Mon 8/7/17	Tue 8/8/17	96	FFX Form Designer
Schedule L - 2017	1 day	Tue 8/8/17	Wed 8/9/17	97	FFX Form Designer
SPF-100-2017	1 day	Wed 8/9/17	Thu 8/10/17	98	FFX Form Designer
Configuration/Development	**112.51 days**	**Thu 7/13/17**	**Tue 12/19/17**		
User Exits & Business Rules Development	5 days	Thu 7/13/17	Thu 7/20/17	22,76	FFX Engineer
Batch Type Configuration	4 days	Thu 8/24/17	Wed 8/30/17	22,57	FFX BA
IBML Input, Barcodes, Rules & Configuration	4 days	Wed 8/30/17	Tue 9/5/17	102	FFX BA
Workflow configuration	6 days	Tue 9/5/17	Wed 9/13/17	103	FFX BA
2D barcode configuration	10 days	Wed 9/13/17	Wed 9/27/17	104	FFX BA
Batch Integrity, Rules & Configuration	2 days	Wed 9/27/17	Fri 9/29/17	105	FFX BA
DLN Burn - Check endorsements, DLN burn on images	2 days	Fri 9/29/17	Tue 10/3/17	106	FFX BA
Quick Key - Balancing Rules & Configuration	20 days	Tue 10/3/17	Tue 10/31/17	107	FFX BA
Quick Key - Form files field setting and business rules	20 days	Tue 10/3/17	Tue 10/31/17	107	FFX BA
Q/Review - Supervisor Exception Processing, Manual Form ID	4 days	Tue 10/31/17	Mon 11/6/17	109	FFX BA
Quick Purge, Rules & Configuration	2 days	Tue 10/31/17	Thu 11/2/17	109	FFX BA
Quick Output - Custom or Standard, Form Type Specific Business rules	20 days	Thu 11/2/17	Thu 11/30/17	111	FFX Engineer
INI File Configurations	5 days	Thu 11/30/17	Thu 12/7/17	112	FFX BA
Check 21, Rules & Configuration	**8 days**	**Thu 12/7/17**	**Tue 12/19/17**		
Check 21, Rules & Configuration	2 days	Thu 12/7/17	Mon 12/11/17	113	FFX BA
Provide required bank info for config. files	6 days	Mon 12/11/17	Tue 12/19/17	115	FFX Engineer
Custom Report Development	**40 days**	**Thu 7/20/17**	**Thu 9/14/17**		
Check 21 Deposit Reports	10 days	Thu 7/20/17	Thu 8/3/17	101	FFX Report Writer
Performance Statistical Reports (including IFP Reports)	10 days	Thu 8/3/17	Thu 8/17/17	118	FFX Report Writer
Audit Reports	10 days	Thu 8/17/17	Thu 8/31/17	119	FFX Report Writer
Workflow Reports	10 days	Thu 8/31/17	Thu 9/14/17	120	FFX Report Writer
Development & Testing Complete	0 days	Thu 9/14/17	Thu 9/14/17	121	FFX Report Writer
WVDOR System Installation & Configuration	**27 days**	**Thu 9/28/17**	**Mon 11/6/17**		
System Configuration and Custom Code	**27 days**	**Thu 9/28/17**	**Mon 11/6/17**		

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
Servers and Storage Ready (VM and Physical)	**27 days**	**Thu 9/28/17**	**Mon 11/6/17**		
Setup- Environment System Install	5 days	Thu 9/28/17	Thu 10/5/17	74	FFX Installation Engineer
Database Design and Configuration	4 days	Thu 10/5/17	Wed 10/11/17	126	FFX Installation Engineer
Quick Modules Service Modules	10 days	Wed 10/11/17	Wed 10/25/17	127	FFX Installation Engineer
Desktop Applications	5 days	Wed 10/25/17	Wed 11/1/17	128	FFX Installation Engineer
Check 21 Configuration	2 days	Wed 11/1/17	Fri 11/3/17	129	FFX Installation Engineer
Test Connections to Citizens Bank	1 day	Fri 11/3/17	Mon 11/6/17	130	FFX Installation Engineer
Installation Complete	**0 days**	**Mon 11/6/17**	**Mon 11/6/17**	**131**	**FFX Installation Engineer**
System Training	**99 days**	**Thu 7/20/17**	**Wed 12/6/17**		
Deliver Custom Training Plan & Schedule	6 days	Wed 7/26/17	Thu 8/3/17	41	FFX PM,WVDOR PM
Develop QA Test Batches	50 days	Thu 8/24/17	Thu 11/2/17	22,57	WVDOR SMEs
Create Test Cases and Test Scripts	30 days	Thu 8/24/17	Thu 10/5/17	22,57	WVDOR SMEs
Deliver FFX System and User Documentation & Manuals	10 days	Thu 7/20/17	Thu 8/3/17	101	FFX PM
System Training	**22 days**	**Mon 11/6/17**	**Wed 12/6/17**		
Supervisor Training	3 days	Mon 11/6/17	Thu 11/9/17	123	FFX Trainer
Operator Training	6 days	Mon 11/6/17	Tue 11/14/17	123	FFX Trainer
System Admin Training	10 days	Tue 11/14/17	Tue 11/28/17	140	FFX Trainer
Production Support Training	6 days	Tue 11/28/17	Wed 12/6/17	141	FFX Trainer
Training Complete	0 days	Wed 12/6/17	Wed 12/6/17	142	FFX Trainer
System Testing	**70 days**	**Mon 11/6/17**	**Mon 2/12/18**		
Unit Testing	**22 days**	**Mon 11/6/17**	**Wed 12/6/17**		
Review modular code	10 days	Mon 11/6/17	Mon 11/20/17	132,77	FFX Team
Test component modules to product specifications	4 days	Mon 11/20/17	Fri 11/24/17	146	FFX Team
Identify anomalies to product specifications	6 days	Mon 11/20/17	Tue 11/28/17	146	FFX Team
Modify code	6 days	Tue 11/28/17	Wed 12/6/17	148	FFX Team
Re-test modified code	4 days	Fri 11/24/17	Thu 11/30/17	147	FFX Team
Unit testing complete	0 days	Thu 11/30/17	Thu 11/30/17	150	FFX Team
FFX QA Testing	**30 days**	**Thu 11/30/17**	**Thu 1/11/18**		
Obtain Test Data and Confirm Data Exchange/interface	15 days	Thu 11/30/17	Thu 12/21/17	151	FFX QA
Create Test Plan	15 days	Thu 11/30/17	Thu 12/21/17	151	FFX QA
Create High Level Test Cases	15 days	Thu 12/21/17	Thu 1/11/18	154	FFX QA
Create Manual Test Scripts	15 days	Thu 12/21/17	Thu 1/11/18	154	FFX QA
Conduct testing and automated scripts	15 days	Thu 11/30/17	Thu 12/21/17	151	FFX QA
Defect Management	15 days	Thu 11/30/17	Thu 12/21/17	157SS	FFX QA
Create test summary report	1 day	Thu 12/21/17	Fri 12/22/17	157	FFX QA
System / Integration Testing Complete	0 days	Thu 1/11/18	Thu 1/11/18	145,152	

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
UAT Testing	**22 days**	**Thu 1/11/18**	**Mon 2/12/18**		
UAT Testing Begins	20 days	Thu 1/11/18	Thu 2/8/18	160	WVDOR QA
Defect Management	20 days	Thu 1/11/18	Thu 2/8/18	162SS	WVDOR PM,FFX PM
ICL File Format approved by Bank	20 days	Thu 1/11/18	Thu 2/8/18	160	FFX PM,WVDOR PM
Send 2 initial Test Files to Bank	2 days	Thu 2/8/18	Mon 2/12/18	164	FFX PM,WVDOR PM
Volume/Stress Test	1 day	Thu 2/8/18	Fri 2/9/18	162	FFX PM,WVDOR PM
Performance Testing	1 day	Thu 2/8/18	Fri 2/9/18	162	FFX PM,WVDOR PM
Bank Check 21 Signoff	0 days	Mon 2/12/18	Mon 2/12/18	165	FFX PM,WVDOR PM
UAT Testing Complete	0 days	Thu 2/8/18	Thu 2/8/18	163	WVDOR PM,FFX PM
Testing Complete / Ready for Production	0 days	Thu 2/8/18	Thu 2/8/18	169	FFX PM,WVDOR PM
Production/Final System Acceptance	**3 days**	**Thu 2/8/18**	**Tue 2/13/18**		
Review of Deliverables and Acceptance Criteria	1 day	Thu 2/8/18	Fri 2/9/18	170	FFX PM,DRA PM
Production Cutover/Deployment	2 days	Fri 2/9/18	Tue 2/13/18	172	DRA PM,FFX PM
System Acceptance - Phase I Sign-off	**0 days**	**Tue 2/13/18**	**Tue 2/13/18**	**173**	**DRA PM,FFX PM**
Phase II Implementation	**110.5 days**	**Tue 2/13/18**	**Wed 7/18/18**		
Phase 2 Requirements and Design	**25 days**	**Tue 2/13/18**	**Tue 3/20/18**		
Verify/Collect Form Requirements	15 days	Tue 2/13/18	Tue 3/6/18	16	
Design Review	5 days	Tue 3/6/18	Tue 3/13/18	177	FFX PM,DRA PM
Update System Design Document	5 days	Tue 3/13/18	Tue 3/20/18	178	FFX PM
Obtain Acceptance on Design Document	0 days	Tue 3/20/18	Tue 3/20/18	179	FFX PM,DRA PM
Form Design & Batch Composition	**10 days**	**Tue 3/20/18**	**Tue 4/3/18**		
Provide Production Like TEST Images and TEST Batches of all form versions	10 days	Tue 3/20/18	Tue 4/3/18	180	WVDOR SMEs
Provide Test Scripts	10 days	Tue 3/20/18	Tue 4/3/18	180	WVDOR SMEs
Form Design & Batch Composition	**85.5 days**	**Tue 3/20/18**	**Wed 7/18/18**		
Phase 2 Form Templates	**16.5 days**	**Tue 3/20/18**	**Thu 4/12/18**		
CNF-120-2011	0.5 days	Tue 3/20/18	Wed 3/21/18	180	FFX Form Designer
CNF-120-2012	0.5 days	Wed 3/21/18	Wed 3/21/18	186	FFX Form Designer
CNF-120-2013	0.5 days	Wed 3/21/18	Wed 3/21/18	186	FFX Form Designer
CNF-120-2014	0.5 days	Wed 3/21/18	Wed 3/21/18	186	FFX Form Designer
CNF-120-2015	0.5 days	Wed 3/21/18	Wed 3/21/18	186	FFX Form Designer
CNF-120-2016	0.5 days	Wed 3/21/18	Wed 3/21/18	186	FFX Form Designer
CNF-120ES_V2007	0.5 days	Wed 3/21/18	Thu 3/22/18	191	FFX Form Designer
CNF-120ES-2008	0.5 days	Thu 3/22/18	Thu 3/22/18	192	FFX Form Designer
CNF-120EXT-2015	0.5 days	Thu 3/22/18	Fri 3/23/18	193	FFX Form Designer
CNF-120EXT-2016	0.5 days	Thu 3/22/18	Fri 3/23/18	193	FFX Form Designer
CNF-120T_V2007	0.5 days	Wed 3/21/18	Wed 3/21/18	186	FFX Form Designer
CNF-120T-2008	0.5 days	Wed 3/21/18	Thu 3/22/18	196	FFX Form Designer
CNF-120T-2009	0.5 days	Wed 3/21/18	Thu 3/22/18	196	FFX Form Designer
CNF-120T-2010	0.5 days	Wed 3/21/18	Thu 3/22/18	196	FFX Form Designer
CNF-120T-2011	0.5 days	Wed 3/21/18	Thu 3/22/18	196	FFX Form Designer
CNF-120T-2012	0.5 days	Wed 3/21/18	Thu 3/22/18	196	FFX Form Designer
CNF-120T-2013	0.5 days	Wed 3/21/18	Thu 3/22/18	196	FFX Form Designer
CNF-120T-2014	0.5 days	Thu 3/22/18	Thu 3/22/18	202	FFX Form Designer

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
CNF-139_V2007	0.5 days	Thu 3/22/18	Fri 3/23/18	203	FFX Form Designer
CST-200CU-2013	0.5 days	Fri 3/23/18	Fri 3/23/18	204	FFX Form Designer
CST-200CU-2016	0.5 days	Fri 3/23/18	Fri 3/23/18	204	FFX Form Designer
SPF-100ES	0.5 days	Fri 3/23/18	Mon 3/26/18	206	FFX Form Designer
SPF-100ES-2008	0.5 days	Fri 3/23/18	Mon 3/26/18	206	FFX Form Designer
SPF-100EXT-2015	0.5 days	Mon 3/26/18	Mon 3/26/18	208	FFX Form Designer
SPF-100EXT-2016	0.5 days	Mon 3/26/18	Mon 3/26/18	208	FFX Form Designer
SPF-100T	0.5 days	Mon 3/26/18	Tue 3/27/18	210	FFX Form Designer
SPF-100T-2009	0.5 days	Tue 3/27/18	Tue 3/27/18	211	FFX Form Designer
SPF-100T-2010	0.5 days	Tue 3/27/18	Tue 3/27/18	211	FFX Form Designer
SPF-100T-2011	0.5 days	Tue 3/27/18	Tue 3/27/18	211	FFX Form Designer
SPF-100T-2012	0.5 days	Tue 3/27/18	Tue 3/27/18	211	FFX Form Designer
SPF-100T-2013	0.5 days	Tue 3/27/18	Tue 3/27/18	211	FFX Form Designer
SPF-100T-2014	0.5 days	Tue 3/27/18	Tue 3/27/18	211	FFX Form Designer
WV-TPT-703	0.5 days	Tue 3/27/18	Wed 3/28/18	217	FFX Form Designer
WV-TPT-705-2016	0.5 days	Wed 3/28/18	Wed 3/28/18	218	FFX Form Designer
WV-TPT-709	0.5 days	Wed 3/28/18	Thu 3/29/18	219	FFX Form Designer
WV-TPT-709-2016	0.5 days	Wed 3/28/18	Thu 3/29/18	219	FFX Form Designer
WV-TPT-722	0.5 days	Thu 3/29/18	Thu 3/29/18	221	FFX Form Designer
WV-TPT-722-2017	0.5 days	Thu 3/29/18	Thu 3/29/18	221	FFX Form Designer
WV-WNE-01	0.5 days	Thu 3/29/18	Fri 3/30/18	223	FFX Form Designer
WV-WNE-02	0.5 days	Fri 3/30/18	Fri 3/30/18	224	FFX Form Designer
IT-140-2011	0.5 days	Fri 3/30/18	Mon 4/2/18	225	FFX Form Designer
IT-140-2012	0.5 days	Fri 3/30/18	Mon 4/2/18	225	FFX Form Designer
IT-140-2013	0.5 days	Fri 3/30/18	Mon 4/2/18	225	FFX Form Designer
IT-140-2014	0.5 days	Fri 3/30/18	Mon 4/2/18	225	FFX Form Designer
IT-140-2015	0.5 days	Fri 3/30/18	Mon 4/2/18	225	FFX Form Designer
IT-140-2016	0.5 days	Fri 3/30/18	Mon 4/2/18	225	FFX Form Designer
IT-140NRC	0.5 days	Mon 4/2/18	Mon 4/2/18	231	FFX Form Designer
IT-140NRC-2009-W	0.5 days	Mon 4/2/18	Mon 4/2/18	231	FFX Form Designer
IT-140NRC-2010	0.5 days	Mon 4/2/18	Mon 4/2/18	231	FFX Form Designer
IT-140NRC-2011	0.5 days	Mon 4/2/18	Mon 4/2/18	231	FFX Form Designer
IT-140NRC-2012	0.5 days	Mon 4/2/18	Mon 4/2/18	231	FFX Form Designer
IT-140NRC-2013	0.5 days	Mon 4/2/18	Mon 4/2/18	231	FFX Form Designer
IT-140NRC-2014	0.5 days	Mon 4/2/18	Mon 4/2/18	231	FFX Form Designer
IT-140NRC-2015	0.5 days	Mon 4/2/18	Mon 4/2/18	231	FFX Form Designer
IT-140NRC-2016	0.5 days	Mon 4/2/18	Mon 4/2/18	231	FFX Form Designer
IT-140NRS-2011	0.5 days	Mon 4/2/18	Tue 4/3/18	240	FFX Form Designer
IT-140NRS-2012	0.5 days	Mon 4/2/18	Tue 4/3/18	240	FFX Form Designer
IT-140NRS-2013	0.5 days	Mon 4/2/18	Tue 4/3/18	240	FFX Form Designer
IT-140NRS-2014	0.5 days	Mon 4/2/18	Tue 4/3/18	240	FFX Form Designer
IT-140NRS-2015	0.5 days	Mon 4/2/18	Tue 4/3/18	240	FFX Form Designer
IT-141	0.5 days	Tue 4/3/18	Tue 4/3/18	245	FFX Form Designer
IT-141-2008	0.5 days	Tue 4/3/18	Wed 4/4/18	246	FFX Form Designer
IT-141-2009-W	0.5 days	Tue 4/3/18	Wed 4/4/18	246	FFX Form Designer
IT-141-2010	0.5 days	Tue 4/3/18	Wed 4/4/18	246	FFX Form Designer

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
IT-141-2011	0.5 days	Tue 4/3/18	Wed 4/4/18	246	FFX Form Designer
IT-141-2012	0.5 days	Tue 4/3/18	Wed 4/4/18	246	FFX Form Designer
IT-141-2013	0.5 days	Tue 4/3/18	Wed 4/4/18	246	FFX Form Designer
IT-141-2014	0.5 days	Tue 4/3/18	Wed 4/4/18	246	FFX Form Designer
IT-141-2015	0.5 days	Tue 4/3/18	Wed 4/4/18	246	FFX Form Designer
IT-141-2016	0.5 days	Tue 4/3/18	Wed 4/4/18	246	FFX Form Designer
IT-141EXT-2015	0.5 days	Wed 4/4/18	Wed 4/4/18	255	FFX Form Designer
IT-141EXT-2016	0.5 days	Wed 4/4/18	Wed 4/4/18	255	FFX Form Designer
IT-141T-2008	0.5 days	Wed 4/4/18	Thu 4/5/18	257	FFX Form Designer
IT-141T-2009	0.5 days	Wed 4/4/18	Thu 4/5/18	257	FFX Form Designer
IT-141T-2010	0.5 days	Wed 4/4/18	Thu 4/5/18	257	FFX Form Designer
IT-141T-2011	0.5 days	Wed 4/4/18	Thu 4/5/18	257	FFX Form Designer
IT-141T-2012	0.5 days	Wed 4/4/18	Thu 4/5/18	257	FFX Form Designer
IT-141T-2013	0.5 days	Wed 4/4/18	Thu 4/5/18	257	FFX Form Designer
IT-141T-2014	0.5 days	Wed 4/4/18	Thu 4/5/18	257	FFX Form Designer
SPF-100-2011	0.5 days	Thu 4/5/18	Thu 4/5/18	264	FFX Form Designer
SPF-100-2012	0.5 days	Thu 4/5/18	Thu 4/5/18	264	FFX Form Designer
SPF-100-2013	0.5 days	Thu 4/5/18	Thu 4/5/18	264	FFX Form Designer
SPF-100-2014	0.5 days	Thu 4/5/18	Thu 4/5/18	264	FFX Form Designer
SPF-100-2015	0.5 days	Thu 4/5/18	Thu 4/5/18	264	FFX Form Designer
SPF-100-2016	0.5 days	Thu 4/5/18	Thu 4/5/18	264	FFX Form Designer
BRT-801A-2010	0.5 days	Thu 4/5/18	Fri 4/6/18	270	FFX Form Designer
BUS-APP-GT	0.5 days	Fri 4/6/18	Fri 4/6/18	271	FFX Form Designer
Cem_Annual_Rpt	0.5 days	Fri 4/6/18	Mon 4/9/18	272	FFX Form Designer
Cem_Reg_App	0.5 days	Mon 4/9/18	Mon 4/9/18	273	FFX Form Designer
CHAR-2-GT	0.5 days	Mon 4/9/18	Tue 4/10/18	274	FFX Form Designer
CSR-1	0.5 days	Tue 4/10/18	Tue 4/10/18	275	FFX Form Designer
CSR-1-2017	0.5 days	Tue 4/10/18	Wed 4/11/18	276	FFX Form Designer
SWA-2	0.5 days	Wed 4/11/18	Wed 4/11/18	277	FFX Form Designer
SWA-2-2014	0.5 days	Wed 4/11/18	Thu 4/12/18	278	FFX Form Designer
Configuration/Development	**21 days**	**Tue 3/20/18**	**Wed 4/18/18**		
User Exits & Business Rules Development	5 days	Tue 4/3/18	Tue 4/10/18	180,182	FFX Engineer
Batch Type Configuration	1 day	Tue 4/10/18	Wed 4/11/18	281	FFX BA
IBML Input, Barcodes, Rules & Configuration	1 day	Wed 4/11/18	Thu 4/12/18	282	FFX BA
Workflow configuration	5 days	Wed 4/11/18	Wed 4/18/18	282	FFX BA
2D barcode configuration	5 days	Wed 4/11/18	Wed 4/18/18	282	FFX BA
Batch Integrity, Rules & Configuration	3 days	Wed 4/11/18	Mon 4/16/18	282	FFX BA
Quick Key - Balancing Rules & Configuration	5 days	Wed 4/11/18	Wed 4/18/18	282	FFX BA
Quick Key - Form files field setting and business rules	5 days	Wed 4/11/18	Wed 4/18/18	282	FFX BA
Quick Output - Custom or Standard, Form Type Specific Business rules	5 days	Tue 3/20/18	Tue 3/27/18	180	FFX Engineer
Unit Testing	**20 days**	**Wed 4/18/18**	**Wed 5/16/18**		
Review modular code	20 days	Wed 4/18/18	Wed 5/16/18	185,280	FFX Team

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
Test component modules to product specifications	20 days	Wed 4/18/18	Wed 5/16/18	185,280	FFX Team
Identify anomalies to product specifications	20 days	Wed 4/18/18	Wed 5/16/18	185,280	FFX Team
Modify code	20 days	Wed 4/18/18	Wed 5/16/18	185,280	FFX Team
Re-test modified code	20 days	Wed 4/18/18	Wed 5/16/18	185,280	FFX Team
Unit testing complete	0 days	Wed 5/16/18	Wed 5/16/18	295	FFX Team
FFX QA Testing	**40 days**	**Wed 5/16/18**	**Wed 7/11/18**		
Obtain Test Data and Confirm Data Exchange/interface	20 days	Wed 5/16/18	Wed 6/13/18	296	FFX QA
Create Test Plan	20 days	Wed 5/16/18	Wed 6/13/18	296	FFX QA
Create High Level Test Cases	20 days	Wed 6/13/18	Wed 7/11/18	299	FFX QA
Create Manual Test Scripts	20 days	Wed 6/13/18	Wed 7/11/18	299	FFX QA
Conduct testing and automated scripts	20 days	Wed 5/16/18	Wed 6/13/18	296	FFX QA
Defect Management	20 days	Wed 5/16/18	Wed 6/13/18	302SS	FFX QA
Create test summary report	1 day	Wed 6/13/18	Thu 6/14/18	302	FFX QA
System / Integration Testing Complete	0 days	Thu 6/14/18	Thu 6/14/18	304	
UAT Testing	**22 days**	**Thu 6/14/18**	**Mon 7/16/18**		
UAT Testing Begins	20 days	Thu 6/14/18	Thu 7/12/18	305	WVDOR QA
Defect Management	20 days	Thu 6/14/18	Thu 7/12/18	307SS	WVDOR PM,FFX PM
ICL File Format approved by Bank	20 days	Thu 6/14/18	Thu 7/12/18	305	FFX PM,WVDOR PM
Send 2 initial Test Files to Bank	2 days	Thu 7/12/18	Mon 7/16/18	309	FFX PM,WVDOR PM
Volume/Stress Test	1 day	Thu 7/12/18	Fri 7/13/18	307	FFX PM,WVDOR PM
Performance Testing	1 day	Thu 7/12/18	Fri 7/13/18	307	FFX PM,WVDOR PM
Bank Check 21 Signoff	0 days	Mon 7/16/18	Mon 7/16/18	310	FFX PM,WVDOR PM
UAT Testing Complete	0 days	Thu 7/12/18	Thu 7/12/18	308	WVDOR PM,FFX PM
Testing Complete / Ready for Production	0 days	Thu 7/12/18	Thu 7/12/18	314	FFX PM,WVDOR PM
Production/Final System Acceptance	**3.5 days**	**Thu 7/12/18**	**Wed 7/18/18**		
Review of Deliverables and Acceptance Criteria	1.5 days	Thu 7/12/18	Mon 7/16/18	315	FFX PM,WVDOR PM
Production Cutover/Deployment	2 days	Mon 7/16/18	Wed 7/18/18	317	WVDOR PM,FFX PM
System Acceptance - Phase 2 Sign-off	**0 days**	**Wed 7/18/18**	**Wed 7/18/18**	**318**	**WVDOR PM,FFX PM**
Phase III Implementation	**118 days**	**Wed 7/18/18**	**Mon 12/31/18**		
Phase 3 Requirements and Design	**35 days**	**Wed 7/18/18**	**Wed 9/5/18**		
Verify/Collect Form Requirements	15 days	Wed 7/18/18	Wed 8/8/18	175	FFX PM,WVDOR PM
Design Review	5 days	Wed 8/8/18	Wed 8/15/18	322	FFX PM,WVDOR PM
Update System Design Document	5 days	Wed 8/15/18	Wed 8/22/18	323	FFX PM
Obtain Acceptance on Design Document	0 days	Wed 8/22/18	Wed 8/22/18	324	FFX PM,WVDOR PM
Form Design & Batch Composition	**10 days**	**Wed 8/22/18**	**Wed 9/5/18**		
Provide Production Like TEST Images and TEST Batches of all form versions	10 days	Wed 8/22/18	Wed 9/5/18	325	WVDOR SMEs
Provide Test Scripts	10 days	Wed 8/22/18	Wed 9/5/18	325	WVDOR SMEs
Form Design & Batch Composition	**93 days**	**Wed 8/22/18**	**Mon 12/31/18**		
Phase 3 Form Templates	**37.5 days**	**Wed 8/22/18**	**Fri 10/12/18**		
ACT-1	0.5 days	Wed 8/22/18	Wed 8/22/18	325	FFX Form Designer
BOT-300_V2008	0.5 days	Wed 8/22/18	Thu 8/23/18	331	FFX Form Designer
BOT-300-2015	0.5 days	Wed 8/22/18	Thu 8/23/18	331	FFX Form Designer

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
BOT-300-2016	0.5 days	Wed 8/22/18	Thu 8/23/18	331	FFX Form Designer
BOT-300E_V2007	0.5 days	Thu 8/23/18	Thu 8/23/18	334	FFX Form Designer
BOT-300E-2015	0.5 days	Thu 8/23/18	Fri 8/24/18	335	FFX Form Designer
BOT-300F_V2008	0.5 days	Fri 8/24/18	Fri 8/24/18	336	FFX Form Designer
BOT-300G_V2008	0.5 days	Fri 8/24/18	Mon 8/27/18	337	FFX Form Designer
BOT-301_V2007	0.5 days	Mon 8/27/18	Mon 8/27/18	338	FFX Form Designer
BOT-301-2015	0.5 days	Mon 8/27/18	Mon 8/27/18	338	FFX Form Designer
BOT-301-2016	0.5 days	Mon 8/27/18	Mon 8/27/18	338	FFX Form Designer
BOT-301E_V2007	0.5 days	Mon 8/27/18	Tue 8/28/18	341	FFX Form Designer
BOT-301E-2015	0.5 days	Mon 8/27/18	Tue 8/28/18	341	FFX Form Designer
CST-240	0.5 days	Tue 8/28/18	Tue 8/28/18	343	FFX Form Designer
CST-240-2015	0.5 days	Tue 8/28/18	Tue 8/28/18	343	FFX Form Designer
CST-240-2016	0.5 days	Tue 8/28/18	Tue 8/28/18	343	FFX Form Designer
CST-270	0.5 days	Tue 8/28/18	Wed 8/29/18	346	FFX Form Designer
CST-270-2017	0.5 days	Tue 8/28/18	Wed 8/29/18	346	FFX Form Designer
FBH-100	0.5 days	Wed 8/29/18	Wed 8/29/18	348	FFX Form Designer
FSF-200-2016	0.5 days	Wed 8/29/18	Thu 8/30/18	349	FFX Form Designer
HCP-3A-2015	0.5 days	Thu 8/30/18	Thu 8/30/18	350	FFX Form Designer
HCP-3A-GT	0.5 days	Thu 8/30/18	Thu 8/30/18	350	FFX Form Designer
HCP-3A-GT-2010	0.5 days	Thu 8/30/18	Fri 8/31/18	352	FFX Form Designer
HCP-3E-GT-2010	0.5 days	Fri 8/31/18	Fri 8/31/18	353	FFX Form Designer
NRSR	0.5 days	Fri 8/31/18	Mon 9/3/18	354	FFX Form Designer
SDET-CP	0.5 days	Mon 9/3/18	Mon 9/3/18	355	FFX Form Designer
SDET-HL	0.5 days	Mon 9/3/18	Tue 9/4/18	356	FFX Form Designer
SDET-UTC	0.5 days	Tue 9/4/18	Tue 9/4/18	357	FFX Form Designer
SEV-400C-GT	0.5 days	Tue 9/4/18	Wed 9/5/18	358	FFX Form Designer
SEV-400C-2017	0.5 days	Wed 9/5/18	Wed 9/5/18	359	FFX Form Designer
SEV-400-GT	0.5 days	Wed 9/5/18	Thu 9/6/18	360	FFX Form Designer
SEV-400H-GT	0.5 days	Thu 9/6/18	Thu 9/6/18	361	FFX Form Designer
SEV-400T-2016	0.5 days	Thu 9/6/18	Fri 9/7/18	362	FFX Form Designer
SEV-400V-GT	0.5 days	Fri 9/7/18	Fri 9/7/18	363	FFX Form Designer
SEV-400W-GT	0.5 days	Fri 9/7/18	Mon 9/10/18	364	FFX Form Designer
SEV-401-2014	0.5 days	Mon 9/10/18	Mon 9/10/18	365	FFX Form Designer
SEV-401C-2015	0.5 days	Mon 9/10/18	Tue 9/11/18	366	FFX Form Designer
SEV-401C-2017	0.5 days	Tue 9/11/18	Tue 9/11/18	367	FFX Form Designer
SEV-401C-Rev09	0.5 days	Tue 9/11/18	Wed 9/12/18	368	FFX Form Designer
SEV-401-GT	0.5 days	Wed 9/12/18	Wed 9/12/18	369	FFX Form Designer
SEV-401H-GT	0.5 days	Wed 9/12/18	Thu 9/13/18	370	FFX Form Designer
SEV-401T-2016	0.5 days	Thu 9/13/18	Thu 9/13/18	371	FFX Form Designer
SEV-401V-GT	0.5 days	Thu 9/13/18	Fri 9/14/18	372	FFX Form Designer
SEV-401W-GT	0.5 days	Fri 9/14/18	Fri 9/14/18	373	FFX Form Designer
SEV-401W-2017	0.5 days	Fri 9/14/18	Mon 9/17/18	374	FFX Form Designer
WV-1096	0.5 days	Mon 9/17/18	Mon 9/17/18	375	FFX Form Designer
WV-945-V-WTB	0.5 days	Mon 9/17/18	Tue 9/18/18	376	FFX Form Designer
WV-945-WTB	0.5 days	Tue 9/18/18	Tue 9/18/18	377	FFX Form Designer
WV-BER-01	0.5 days	Tue 9/18/18	Wed 9/19/18	378	FFX Form Designer

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
WV-BGO-1	0.5 days	Wed 9/19/18	Wed 9/19/18	379	FFX Form Designer
WV-BGO-3	0.5 days	Wed 9/19/18	Thu 9/20/18	380	FFX Form Designer
WV-BRW-01	0.5 days	Thu 9/20/18	Thu 9/20/18	381	FFX Form Designer
WV-BRW-01-2015	0.5 days	Thu 9/20/18	Fri 9/21/18	382	FFX Form Designer
WV-DIS-01	0.5 days	Fri 9/21/18	Fri 9/21/18	383	FFX Form Designer
WV-FRM-01	0.5 days	Fri 9/21/18	Mon 9/24/18	384	FFX Form Designer
WV-IFTA-13	0.5 days	Mon 9/24/18	Mon 9/24/18	385	FFX Form Designer
WV-MFR-14	0.5 days	Mon 9/24/18	Tue 9/25/18	386	FFX Form Designer
WV-MFR-14-2014	0.5 days	Tue 9/25/18	Tue 9/25/18	387	FFX Form Designer
WV-MFR-14-2015	0.5 days	Tue 9/25/18	Wed 9/26/18	388	FFX Form Designer
WV-MFR-14G-2016	0.5 days	Wed 9/26/18	Wed 9/26/18	389	FFX Form Designer
WV-MFR-14NG-2016	0.5 days	Wed 9/26/18	Thu 9/27/18	390	FFX Form Designer
WV-MFT-501	0.5 days	Thu 9/27/18	Thu 9/27/18	391	FFX Form Designer
WV-MFT-501-2014	0.5 days	Thu 9/27/18	Thu 9/27/18	391	FFX Form Designer
WV-MFT-501-2015	0.5 days	Thu 9/27/18	Thu 9/27/18	391	FFX Form Designer
WV-MFT-501-2016	0.5 days	Thu 9/27/18	Thu 9/27/18	391	FFX Form Designer
WV-MFT-501-2017	0.5 days	Thu 9/27/18	Thu 9/27/18	391	FFX Form Designer
WV-MFT-501-0717	0.5 days	Thu 9/27/18	Thu 9/27/18	391	FFX Form Designer
WV-MFT-504	0.5 days	Thu 9/27/18	Fri 9/28/18	397	FFX Form Designer
WV-MFT-504-2014	0.5 days	Thu 9/27/18	Fri 9/28/18	397	FFX Form Designer
WV-MFT-504-2016	0.5 days	Thu 9/27/18	Fri 9/28/18	397	FFX Form Designer
WV-MFT-504-2017	0.5 days	Thu 9/27/18	Fri 9/28/18	397	FFX Form Designer
WV-MFT-505	0.5 days	Fri 9/28/18	Fri 9/28/18	401	FFX Form Designer
WV-MFT-505-2016	0.5 days	Fri 9/28/18	Fri 9/28/18	401	FFX Form Designer
WV-MFT-506	0.5 days	Fri 9/28/18	Mon 10/1/18	403	FFX Form Designer
WV-MFT-506-2014	0.5 days	Fri 9/28/18	Mon 10/1/18	403	FFX Form Designer
WV-MFT-507	0.5 days	Mon 10/1/18	Mon 10/1/18	405	FFX Form Designer
WV-MFT-507-2016	0.5 days	Mon 10/1/18	Mon 10/1/18	405	FFX Form Designer
WV-MFT-508	0.5 days	Mon 10/1/18	Tue 10/2/18	407	FFX Form Designer
WV-MFT-508-2014	0.5 days	Mon 10/1/18	Tue 10/2/18	407	FFX Form Designer
WV-MFT-508-2016	0.5 days	Mon 10/1/18	Tue 10/2/18	407	FFX Form Designer
WV-MFT-508-2017	0.5 days	Mon 10/1/18	Tue 10/2/18	407	FFX Form Designer
WV-MFT-511	0.5 days	Tue 10/2/18	Tue 10/2/18	411	FFX Form Designer
WV-MFT-511-2014	0.5 days	Tue 10/2/18	Tue 10/2/18	411	FFX Form Designer
WV-MFT-511-2015	0.5 days	Tue 10/2/18	Tue 10/2/18	411	FFX Form Designer
WV-MFT-511-2016	0.5 days	Tue 10/2/18	Tue 10/2/18	411	FFX Form Designer
WV-MFT-511-2017	0.5 days	Tue 10/2/18	Tue 10/2/18	411	FFX Form Designer
WV-MFT-513	0.5 days	Tue 10/2/18	Wed 10/3/18	416	FFX Form Designer
WV-MFT-514	0.5 days	Wed 10/3/18	Wed 10/3/18	417	FFX Form Designer
WV-MFT-APP-2009	0.5 days	Wed 10/3/18	Thu 10/4/18	418	FFX Form Designer
WV-MFT-USE	0.5 days	Thu 10/4/18	Thu 10/4/18	419	FFX Form Designer
WV-MFT-USE-2014	0.5 days	Thu 10/4/18	Fri 10/5/18	420	FFX Form Designer
WV-MFT-USE-2015	0.5 days	Thu 10/4/18	Fri 10/5/18	420	FFX Form Designer
WV-MFT-USE-2016	0.5 days	Thu 10/4/18	Fri 10/5/18	420	FFX Form Designer
WV-RAF-1	0.5 days	Fri 10/5/18	Fri 10/5/18	423	FFX Form Designer
WV-RAF-3	0.5 days	Fri 10/5/18	Mon 10/8/18	424	FFX Form Designer

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
WV-RAFBRD-1	0.5 days	Mon 10/8/18	Mon 10/8/18	425	FFX Form Designer
WV-RAFBRD-3	0.5 days	Mon 10/8/18	Tue 10/9/18	426	FFX Form Designer
WV-SDR-2008	0.5 days	Tue 10/9/18	Tue 10/9/18	427	FFX Form Designer
WV-SDR-2008-2017	0.5 days	Tue 10/9/18	Tue 10/9/18	427	FFX Form Designer
WV-SDR-2015	0.5 days	Tue 10/9/18	Tue 10/9/18	427	FFX Form Designer
WV-SDR-2015-2017	0.5 days	Tue 10/9/18	Tue 10/9/18	427	FFX Form Designer
WV-SDR-2017	0.5 days	Tue 10/9/18	Tue 10/9/18	427	FFX Form Designer
WV-TLM	0.5 days	Tue 10/9/18	Wed 10/10/18	432	FFX Form Designer
55-REDEPOSIT	0.5 days	Wed 10/10/18	Wed 10/10/18	433	FFX Form Designer
Check-for-Split	0.5 days	Wed 10/10/18	Thu 10/11/18	434	FFX Form Designer
COUNTY-INVOICE	0.5 days	Thu 10/11/18	Thu 10/11/18	435	FFX Form Designer
COUNTY-Q4INVOICE	0.5 days	Thu 10/11/18	Fri 10/12/18	436	FFX Form Designer
TAX-CODE-34	0.5 days	Fri 10/12/18	Fri 10/12/18	437	FFX Form Designer
Configuration/Development	**26 days**	**Wed 8/22/18**	**Thu 9/27/18**		
User Exits & Business Rules Development	1 day	Wed 8/22/18	Thu 8/23/18	325	FFX Engineer
Batch Type Configuration	1 day	Thu 8/23/18	Fri 8/24/18	440	FFX BA
IBML Input, Barcodes, Rules & Configuration	1 day	Fri 8/24/18	Mon 8/27/18	441	FFX BA
Workflow configuration	5 days	Mon 8/27/18	Mon 9/3/18	442	FFX BA
2D barcode configuration	5 days	Mon 9/3/18	Mon 9/10/18	443	FFX BA
Batch Integrity, Rules & Configuration	3 days	Mon 9/10/18	Thu 9/13/18	444	FFX BA
Quick Key - Balancing Rules & Configuration	5 days	Thu 9/13/18	Thu 9/20/18	445	FFX BA
Quick Key - Form files field setting and business rules	5 days	Thu 9/20/18	Thu 9/27/18	446	FFX BA
Quick Output - Custom or Standard, Form Type Specific Business rules	5 days	Thu 8/23/18	Thu 8/30/18	440	FFX Engineer
Unit Testing	**15 days**	**Thu 9/27/18**	**Thu 10/18/18**		
Review modular code	15 days	Thu 9/27/18	Thu 10/18/18	41,439	FFX Team
Test component modules to product specifications	15 days	Thu 9/27/18	Thu 10/18/18	439,41	FFX Team
Identify anomalies to product specifications	15 days	Thu 9/27/18	Thu 10/18/18	439,41	FFX Team
Modify code	15 days	Thu 9/27/18	Thu 10/18/18	439,41	FFX Team
Re-test modified code	15 days	Thu 9/27/18	Thu 10/18/18	439,41	FFX Team
Unit testing complete	0 days	Thu 10/18/18	Thu 10/18/18	454,438	FFX Team
FFX QA Testing	**20 days**	**Thu 10/18/18**	**Thu 11/15/18**		
Obtain Test Data and Confirm Data Exchange/interface	20 days	Thu 10/18/18	Thu 11/15/18	455	FFX QA
Create Test Plan	20 days	Thu 10/18/18	Thu 11/15/18	455	FFX QA
Create High Level Test Cases	20 days	Thu 10/18/18	Thu 11/15/18	455	FFX QA
Create Manual Test Scripts	20 days	Thu 10/18/18	Thu 11/15/18	455	FFX QA
Conduct testing and automated scripts	20 days	Thu 10/18/18	Thu 11/15/18	455	FFX QA
Defect Management	20 days	Thu 10/18/18	Thu 11/15/18	455	FFX QA
Create test summary report	20 days	Thu 10/18/18	Thu 11/15/18	455	FFX QA

Task Name	Duration	Start	Finish	Predecessors	Resource Initials
System / Integration Testing Complete	0 days	Thu 11/15/18	Thu 11/15/18	463	
UAT Testing	**20 days**	**Thu 11/15/18**	**Thu 12/13/18**		
UAT Testing Begins	20 days	Thu 11/15/18	Thu 12/13/18	456	WVDOR QA
Defect Management	20 days	Thu 11/15/18	Thu 12/13/18	456	WVDOR PM,FFX PM
Volume/Stress Test	1 day	Thu 11/15/18	Fri 11/16/18	456	FFX PM,WVDOR PM
Performance Testing	1 day	Thu 11/15/18	Fri 11/16/18	456	FFX PM,WVDOR PM
UAT Testing Complete	0 days	Thu 12/13/18	Thu 12/13/18	466	WVDOR PM,FFX PM
Testing Complete / Ready for Production	0 days	Thu 12/13/18	Thu 12/13/18	470	FFX PM,WVDOR PM
Production/Final System Acceptance	**5 days**	**Thu 12/13/18**	**Thu 12/20/18**		
Review of Deliverables and Acceptance Criteria	1 day	Thu 12/13/18	Fri 12/14/18	471	FFX PM,WVDOR PM
Production Cutover/Deployment	4 days	Fri 12/14/18	Thu 12/20/18	473	PROJECT TEAM
System Acceptance - Phase 3 Sign-off	**0 days**	**Thu 12/20/18**	**Thu 12/20/18**	**474**	**FFX PM,WVDOR PM**
Project Close Out	**7 days**	**Thu 12/20/18**	**Mon 12/31/18**		
Update Project Documentation	5 days	Thu 12/20/18	Thu 12/27/18	475	FFX PM
Conduct Lessoned Learned	1 day	Thu 12/27/18	Fri 12/28/18	477	FFX PM,WVDOR PM
Final System Acceptance of all Phases and release of retainage payment milestone.	**0 days**	**Thu 12/20/18**	**Thu 12/20/18**	**474**	**FFX PM,WVDOR PM**
Transition to Support	1 day	Fri 12/28/18	Mon 12/31/18	478	FFX PM

Like any project, the client, in this case WV Tax understands that they have certain responsibilities that will contribute to a successful project implementation. These responsibilities must be met on a timely basis in order to ensure that project milestones are achieved as scheduled.

During the project WV Tax resources will play a key role in guiding the Fairfax Imaging team and providing WV Tax oversight. The expected resources required for the project are identified below.

Project Management and Support
A WV Tax Project Manager will be assigned as the primary source of contact for the Fairfax Imaging Project Manager. The WV Tax Project Manager will be the primary contact for all inquiries, information collection to support the implementation and decision making as part of the project on behalf of WV Tax during the entire project development, implementation, and testing life cycle.

Operation Staff and Subject Matter Experts (SME)
The WV Tax will supply identified individuals who are well versed in the day to day operation of the current process. These individuals should be considered knowledgeable in the business requirements, approach, and methods of the agency and therefore provide input, guidance and responses to the best practices discussed during the analysis and design phase of the project. In addition, the staff will assist in training including supervisory, operator, and administrative technical throughout the phases of the project.

Testing Materials and Support Resources
WV Tax will supply all necessary test forms in the specified volumes and conditions for development and testing. Detail test scripts will be generated by WV Tax staff that reflects the complete operation of the deliverables defined in the Detail Design.

Although Fairfax Imaging's QA staff will perform testing prior to delivery as well as regression testing by phase, the WV Tax Test Staff will provide final execution of the supplied test cases, regression testing, auditing of the system operation to ensure compliance to requirements, and reporting of results to the WV Tax Project Manager and Fairfax Imaging Team as part of the implementation.

Operational Personnel and System Administrators will be available during scheduled training and testing periods. WV Tax personnel scheduled for training or testing should be available for a normal 8-hour day unless otherwise mutually agreed upon.

Information Resources (IT/Technical Staff)
WV Tax is responsible for supplying hardware, software, configuration, mapping, address assignments, etc. where Fairfax Imaging devices are servers and/or clients on the States wide area network to the specifications supplied by Fairfax Imaging. Network support personnel must be available as needed to work on connectivity and network issues related to installation and configuration of the new system into the County's wide area network.

Facilities
WV Tax will provide Fairfax Imaging personnel appropriate facilities during installation such as:

- Desk space
- Building access (off-hours and weekends, if needed)
- Network access to application network
- Network access to all regions of the installed Fairfax Imaging system

4.7.5. What is the average lead-time for implementation?

Vendor Response:

Fairfax Imaging will initiate the Project within two weeks after receipt of order. A kick off call will be coordinated as the first task in the Project implementation cycle which will be attended by all members of the Fairfax Imaging Project Team along with the WV Project Manager and appropriate staff. During this initial call, the Fairfax Imaging Project Manager will review the project deliverables, intended timelines, project overview of approach, along with providing WV Tax with a list of items for preparation of the next step in the process which is the Detail Design phase.

4.7.6. What are the critical factors that may affect that lead-time?

Vendor Response:

There are only two critical factors which affect Fairfax Imaging's ability to start the project. One is the availability of the identified resources for the Fairfax Imaging Project Team to be available. This risk is mitigated typically through notification of award by WV Tax and the general knowledge that a pending award is likely. Therefore we see no issues in having our team readily available to start the project.

The second factor is receipt of award/order from WV Tax. We anticipate that this process will be managed by WV Tax and the anticipated start of the project will be determined based upon State procurement process.

4.7.7. What, if any, have been the most common causes for delays or problems with implementations? What steps have you taken to minimize their occurrence?

Vendor Response:

Fairfax Imaging experience spanning over 20 years of installations in the state government marketplace, has taught many lessons that have endured for successful completion and risk mitigation to projects. We have tried to always put to use on successive projects these lessons learned, in an effort to improve our rendering on the next project. Some of the lessons learned are:

1. Scope: Managing to the proposed scope of the project is key in ensuring that the project gets completed on time. Also, understanding the number of forms that are required to be automated through the system is tantamount to producing a system that is responsive to the needs of the state. Fairfax Imaging, as a partner of the state, will always do what it is asked to do to fulfill the mission and objectives of the state. However, in the interest of timeliness and completeness, it is imperative to regroup and gather all the requirements and constraints of the system as a whole at design time, for it is at design time that incorporating an exhaustive list of requirements and business rules is the most efficient way to run and execute the project.

2. State management resources: Commitment of the state management to the mission and objectives of the project is very important to ensure that the staff is committed to the success of the project as a mission-critical application of the utmost importance to the state.

3. Subject matter resources: Dedicating subject matter experts in IT, interfaces, and business rules a various times of the project lifecycle will help ensure passing of the appropriate knowledge to our technical and business staff, and in turn will result in accurate data being analyzed, captured, and passed.

4. Steering committee: We believe that a steering committee with vested interest in the success of the project that is composed of the senior management from Fairfax as well as the state is also an important aspect of the system success. This committee should have monthly meetings, and all issues encountered should be discussed openly and frankly with a swift and decisive resolution mechanism, coupled with follow-up checks on the success of the resolution mechanism established.

5. Testing resources: The testing resources need to be made available during the system testing period, and they need to be efficient and experienced at testing the system. Ideally, the testing resources need to be familiar with the business rules that were established at the inception of the project at design time, so as not to have a situation where the testers are testing system features that have been erected in a way that is not compatible with what they are accustomed to working with.

6. Relevant test scripts: Relevant test scripts from previous systems of a similar nature need to be erected. The state will be responsible for developing these test scripts and should ensure that these are relevant to the conditions on hand. Each state is different and their business rules, while they have some commonality, are still unique to each state. Thus these test scripts need to be adapted to the environment that are particular to WV Tax.

7. Appropriate test cases: Test cases need to represent anticipated real live experiences of the registration process.

8. Proper training at all levels: This is a team effort. Our technical team will work side by side with the state personnel to impart and transfer the knowledge during the project. Proper passing and acceptance of the new technology is paramount to the proper run-time aspect of the solution, for an educated workforce leads to an effective user base of the system.

9. Prompt and immediate escalation of the issues: Fairfax Imaging is a very transparent organization, and we pledge that the issues will be escalated as soon as they are encountered when they cannot be resolved immediately and swiftly by the Project Manager. This level of escalation will occur to the highest levels of management of the company. When the same escalation mechanisms exist within the state, no issue remains unresolved, and proper intra-management communication takes place.

4.7.8. What action can WV TAX take to minimize the occurrence?

Vendor Response:

WV Tax can take the following actions to minimize or addressed the experienced issues identified:

- Assignment of a singular WV Tax Project Manager who will have responsibility for assigning tasks to WV staff as well as providing direction to the Fairfax Imaging Project Manager.
- Identifying test team that is available for providing test scripts and test materials which are appropriate to the Detail Design of the system.
- Availability of resources such as IT, network and server environments during implementation.
- Updated and accurate data related to forms, business rules, output formats, and reports required for the system.

4.7.9. Explain how overlooked key requirements and functionality in the R&D phase are addressed by the vendor/supplier.

Vendor Response:

Fairfax Imaging is committed to meeting the requirements stated within this RFP and further defined within the Detail Design document agreed upon and approved by WV Tax. During our Design phase of the project, Fairfax Imaging spends a great deal of time to address all known practices that are common within a remittance and data capture solution such as the one proposed herein. As industry veterans we will review all process thoroughly with WV Tax to ensure no requirements or functionality is overlooked.

We do not anticipate changes to the project in scope or nature arising from Fairfax Imaging. However, should a change request arise or be needed, we will abide by the required protocol for Change Management. Any modification to the Detail Design will be reviewed by both Project Managers with an understanding of what the change includes the purpose for the modification and the impact to the project, if any. The Fairfax Imaging Project Manager will then submit project change requests, to the WV Tax Project Manager. The WV Tax Project Manager will review and analyze any project change requests and make a recommendation to the Fairfax Imaging Project Manager. Changes will not be made without WV Tax written approval. The WV Tax Project Manager will receive and evaluate vendor deliverables and notify the Fairfax Imaging Project Manager of the results of the evaluation. Any change made to the system that was not identified within the Detail Design will be included in the Design as an Addendum for future reference.

4.7.10. Address how your organization avoids/minimizes missed key functionality in the design phase. If this problem occurs, explain how the situation is rectified?

Vendor Response:

Our implementation methodology includes a design phase that consists of several analysis sessions where our experienced Project Team members review the intended operation, workflow, and requirements of the proposed system with WV Tax staff. As with any project, the result of defining the requirements of the system is jointly responsible of both Fairfax Imaging and WV Tax. Prior to approval of the Detail Design, Fairfax Imaging will spend considerable time with WV Tax operations, management, and IT staff to review the deliverables and features of the intended solution. Although unlikely, should a key functionality be missed the situation is rectified through standard Change Management process. Our approach is always to first determine the functionality that is missing, along with understanding of the intended approach and requirements. Upon reviewing with WV Tax, Fairfax Imaging's Project Manager will document the modifications necessary to include the functionality into the system either at that point in time in the project, or in subsequent phases. WV Tax will be requested to approve the intended changes prior to Fairfax Imaging performing the modifications.

4.7.11. List some of the bottlenecks you have encountered during system implementations. What recommendations can you provide to minimize or avoid these bottlenecks?

Vendor Response:

As with any project, risks are encountered and mitigated during the project implementation. Fairfax Imaging's Project Manager will deliver a Risk Management Plan. Risks will be reviewed weekly during a weekly Risk Meeting. Those risks are then added to the Risk Register and delivered weekly with the Status Report.

Typical risks identified are notes below with mitigation strategies identified for each.

Risk	Risk Level L-Low/M-Medium/H-High	Risk Value	Mitigation Strategy
Project Size			
Resources	**M:** Need many resources for identifying business practices, system set up and testing.	**2 – May or May Not Occur**	Assigned WV Tax Project Manager, comprehensive project management approach and communications plan
Estimated Project Schedule	**M:** Four to seven months	**3 – Likely to Occur**	Created comprehensive project timeline with frequent baseline reviews
Team Size	**H:** Larger project teams tend to get sidetracked.	**3 – Likely to Occur**	Comprehensive communications plan, frequent meetings, tight project management oversight
Number of Interfaces to Existing Systems Affected	**L:** Unknown number at this time.	**1 - Unlikely To Occur**	Develop interface control document immediately
Project Definition			
Project Scope Creep (modifications needed to the baseline system to accommodate our business requirements)	**L:** Scope generally defined, subject to revision	**1 - Unlikely To Occur**	Scope intially defined in project plan, design document sign off to prevent undetected scope creep
Timeline Estimates Unrealistic	**M:** Timeline assumes no derailment	**2 – May or May Not Occur**	Timeline reviewed monthly by three groups (Project Sponsors, Project Manager and Core Project Team) to prevent undetected timeline departures
Number of Team Members Unknowledgeable of Business	**L:** Team well versed in business operations impacted by technology	**1 - Unlikely To Occur**	Project Manager and WV Tax to identify knowledge gaps and provide training, as necessary, mostly during analysis.
Project Leadership			
Absence of Commitment Level/Attitude of Management	**L:** Understands value & supports project	**1 - Unlikely To Occur**	Frequently seek feedback to ensure continued support
Absence of Commitment Level/Attitude of Users	**L:** Understands value & supports project	**1 - Unlikely To Occur**	Frequently seek feedback to ensure continued support
Absence of Mid-Management Commitment	**L:** Most understand value & support project	**1 - Unlikely To Occur**	Frequently seek feedback to ensure continued support
Project Staffing			
Project Team Availability	**M:** Distributed team makes availability questionable	**2 – May or May Not Occur**	Continuous review of project momentum by all levels. Consultant to identify any impacts caused by unavailability.
Physical Location of Team prevents effective management	**M:** Team is dispersed among several sites	**3 – Likely to Occur**	Use of WV Project Manager and Functional Leads to arrange meetings. Comprehensive Communications Plan
Weak User Participation on Project Team	**L:** Users are part-time team members	**1 - Unlikely To Occur**	User Group Participants coordinated by Core Project Team
Software Vendor			
Team's Lack of Knowledge of Package	**M:** Conceptual understanding	**2 – May or May Not Occur**	Fairfax Imaging use of experience team members.

4.7.12. Describe the project planning methodology used for new system implementations.

Vendor Response:

Fairfax Imaging System Implementation Methodology

Fairfax Imaging's project planning methodology is based on industry best practices and established standards derived from the PMI Institute's Project Management Body of Knowledge (PMBOK). We have adopted and deploy these strategies as part of our project development life cycle and they have proven successful on projects similar in scope and nature to that of WV Tax.

Each project consists of initiating, planning, executing, controlling/monitoring, and closing phases to provide guidance to the process. Within each of these, specific tasks enacted upon by the Fairfax Imaging team or provided deliverables ensure a defined approach to the execution of the project. Regardless of size of the project or phases, the methods used by Fairfax Imaging team allow proper management, planning, and execution to the overall goals and project implementation.

The overall approach is illustrated below.

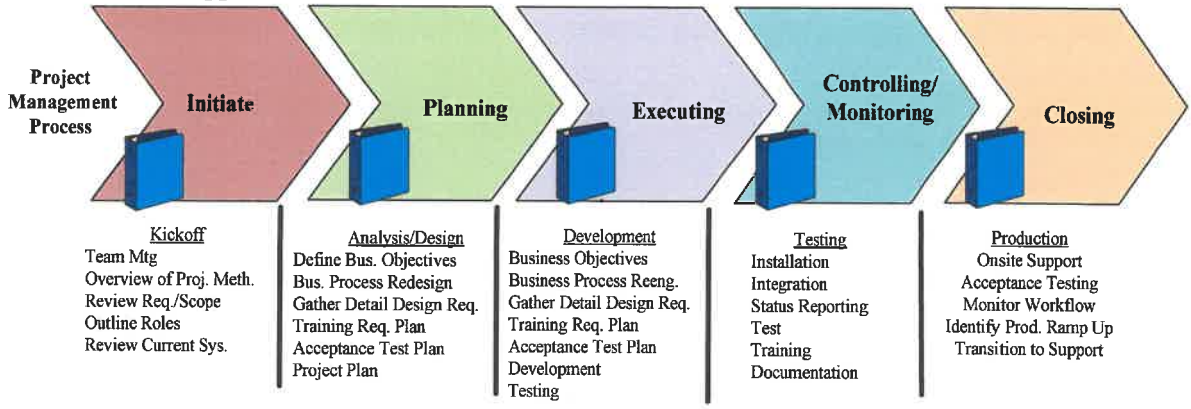


Figure 55 –Project Management Process

Section 4, Subsection 4.8

4.8. Goal/Objective 8: SCANNING

The Department desires to have upgraded IBML scanners that have current operating systems and faster scanning and recognition features. Please describe how your solution will meet the following needs:

4.8.1. Provide a list and quantity of document scanning hardware/transports you propose with your processing solution.

Vendor Response:

Fairfax Imaging is proposing ibml ImageTrac 6400 scanners for the processing solution. Ibml Corporation is the leading supplier and manufacturer of high speed scanning hardware for tax operations. Fairfax Imaging is a certified reseller/provider of ibml for all products and services offered by ibml.

Two (2) ImageTrac 6400 high speed transports will serve as the primary production scanners for WV Tax. The configuration of each ImageTrac 6400 is as follows:

Figure 56 – ibml ImageTrac 6400

The recommended configuration includes intermixed document feeder capable of handling intermixed tax documents with payments and checks, friction and ultrasonic doubles detection, MICR reader and DocNetics Checks-All (ICR) for check detection and recognition, front and rear camera, DocNetics Barcode (1D, 2D, and Post Net) for reading and decoding for batch and/or transaction separation, inkjet printer for DLN spray and three out sort pockets.

A listing of these features configured with the ImageTrac 6400 includes:

Product Description	Quantity
Hardware and Third Party Components	
ImageTrac 6400 - Straight Path with 3 pockets	2
Embedded Application Controller	2
IT6, E13B MICR Reader	2
Post Image, IJP Single Head	2
IT6, Feed and Runout Tray for 11x17	2
Upgrade kit to Windows Server 2012	2
IT6, Pass Modules for Full Page	2
SoftTrac Scan Capture Suite Advanced for ImageTrac Conversion	2
DocNetics Envelope Detection	2
DocNetics ChecksAll, Dual Camera	2
SoftTrac Data and Image Retention	1
SoftTrac Analytics, Single License	1
SoftTrac Scan Off-line Admin	1
SoftTrac Scan Off-line Job Development	1
SoftTrac Scan Off-line Quality Control	1

Table 5 – ImageTrac 6400 Features

4.8.2. Provide the performance specifications, including rated capacity, for the selected scanning hardware / transports.

Vendor Response:

The ImageTrac 6400 provides duplex scanning (300 DPI at 50 inches per second) at up to 286 pages per minute based upon 8.5" x 11" documents, or (200 DPI at 75 inches per second) at up to 429 pages per minute. The ImageTrac 6400 class scanners also include features that make the most sophisticated jobs possible and easy to use, manage and maintain. The operator control center provides quick access to essential machine functions, simplifying the setup and processing of documents and increasing operator productivity. Because of their ease of use, a single person can operate multiple machines in certain applications.

A few of the many ImageTrac features include:

- Duplex camera imaging
- Mixed document scanning
- Bi-tonal, grayscale and color scanning
- Output Resolution: Black and White/Color/Gray scale: 100 to 600 dpi
- Document Size: 64 mm (2.5 in.) x 85 mm (3.25 in.) to 297 mm (11.7 in.) x 432 mm (17 in.)
- Paper Thickness and Weight: Standard feeder 45 g/m2 to 200 g/m2; Asian paper (rice paper) to card stock
- Multi-feed detection
- Dynamic TIFF

- Ultrasonic doubles detection
- Mechanical document detection and de-skew
- User-friendly touch screen control
- Thick document detection
- Envelope detection
- Post-image ink jet printer
- Hardware MICR reader
- DocNetics® suite

4.8.3. Provide a brief explanation of your choice in scanning hardware / transports. What are the benefits of your proposed scanning equipment over that in current use by WV TAX?

Vendor Response:

Fairfax Imaging has included the ibml ImageTrac family of scanning components to satisfy the needs and requirements of WV Tax. Several business and technical reasons exist that justify the selection of this scanning platform.

The ImageTrac family of scanners is in use at thirty-three (33) State Revenue agencies across the US. As such, the ImageTrac scanner is the workhorse of this type of processing environment and is capable of handling all the various paper types received by WV Tax.

Today, WV Tax utilizes an older version of the ImageTrac scanning family and therefore the migration to the newer scanner platform eases the transition and provides operator continuity to the new platform, thus reducing operator training and mitigating risk. The ibml ImageTrac 6400 scanning platform has been developed and enhanced over the years as new technology allows for more intelligence, better recognition, and faster scanning. The improvements on the ImageTrac 6400 consist of performance and reliability improvements, as well as ergonomic and software enhancements. Below are some of the benefits of the ImageTrac 6400.

- Windows 2012 R2 64-bit Operating System
- Dynamic Feeding Capability to increase overall wall throughput rates
- Dual double feed detection using ultrasonic and friction detection
- 508 Compliance for disabled persons
- DocNetics Barcode Recognition for 1D/2D and Postal Barcode
- DocNetics Envelope Detection
- Touchless MICR reader that utilizes a non-contact charge head
- High capacity pockets to hold more documents and allow easier retrieval
- Integration with *Quick* Modules 5.0

4.8.4. Provide specifications on the proposed scanning equipment's ability to handle variations in forms and documents. Discussion should include, but not be limited to, document size, paper weight, color, inks, etc.

Vendor Response:

The ImageTrac 6400 document feeder tray is adjustable and can handle intermixed paper sizes (2½ X 3¼ inches to 11.75 X 17) and weights (onion skin to card stock). The tray has a capacity up to 1500 sheets of 8½ X 11 inches' bond paper with continuous feed ability and a high tolerance for creased documents, staples, and paperclips using effective doubles detection technology. The drop feed capability is used in the error recovery process and allows for automated feeding of extremely difficult documents with minimal impact on throughput and costly exceptions/re-scans are virtually eliminated. The open track allows for full visibility and access to documents throughout the scanning process. This makes jam recovery quick and simple while maintaining full batch integrity.

The ImageTrac 6400 is able to handle different color paper with different variations in light to dark ink and various shades using ibml's Dynamic Tiff imaging output. Dynamic Tiff allows for the ibml solution to produce a consistent quality image no matter the paper color or type and with a wide variety of shades and consistency of ink colors.

The page document feeder requires no presorting of documents. The ImageTrac 6400 will process a wide array of intermixed sizes and weights of paper without the need to sort. Coupled with Fairfax Imaging's *Quick* Modules system, the solution offered will provide "virtual batching" capabilities so as to allow electronic sorting of tax forms/types into different queues for ease of downstream processing.

Figure 57 – ibml ImageTrac 6400 – Document Feeder

4.8.5. Discuss what, if any, additional software, hardware, or procedures you employ to improve image quality and data recognition.

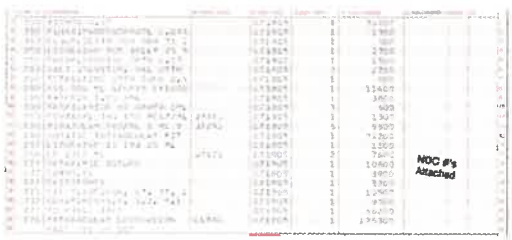
Vendor Response:

The ImageTrac 6400 provides the highest image quality of image capture of any high speed transport in the industry. Through enhanced optics and illumination capabilities, the ImageTrac 6400 provides the ability to image capture documents considered difficult for other similar transports. The ImageTrac 6400 provide image enhancement capabilities such as the ability to deskew, crop, despeckle, contrast, and brightness.

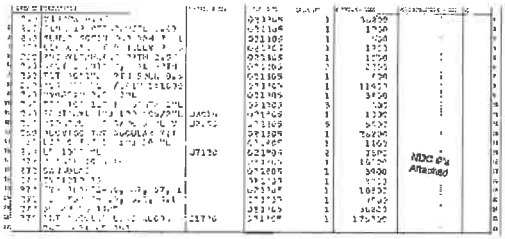
In addition, ibml offers DynamicTiff which produces a consistent quality image across dark and light printed documents. DynamicTIFF works by taking the contrast setting, set in the parameter file, and adjusting these settings from complete saturation until complete dilution. During this process 16 individual images with different settings will be taken. After all the images are taken and analyzed he DynamicTIFF algorithm selects the best of the sixteen images and releases that particular image. All of this occurs while the document travels down the ImageTrac, providing a consistent quality image to increase recognition rates and reducing rescans.

Through the use of Dynamic TIFF, the ImageTrac 6400 reliably captures images of all form types Instead of image quality being determined as an average from a batch of documents, individual documents are analyzed for maximum clarity and sharpness. Lightly printed or "busy" documents will be enhanced and made more readable by operator and recognition engine alike. Additionally, through the use of SoftTrac and in combination with Dynamic TIFF the system will eliminate track stoppages caused by blue or black sided W2's.

The ability to utilize Dynamic TIFF advanced image enhancement tools gives exceptional image quality to all documents, including light print forms. Any re-scans caused by poor image quality should be greatly reducing after implementing Dynamic TIFF. The operational impact of this function is found in the elimination of any pre-scan sorting of light print from dark print claims.



Original



Traditional TIFF result

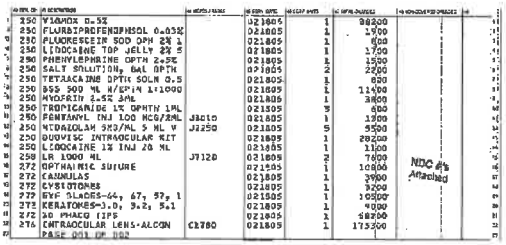


Image Quality with Dynamic TIFF

Figure 58 – ibml ImageTrac 6400 – Sample Image Quality

4.8.6. Provide a list of the recognition technologies included with your proposed scanning equipment.

Vendor Response:

The ImageTrac scanners are equipped with the following recognition technologies.

DocNetics Barcode
The ImageTrac 6400 uses software based bar code reading technology called DocNetics-Barcode for recognition and reading of all 1D, postal, 4-state and 2D bar codes. DocNetics-Barcode provides the most versatile approach for recognizing bar codes, allowing more options and capabilities for decoding bar code symbologies. With DocNetics-Barcode, bar code positioning is no longer critical to proper decoding of the bar code. The DocNetics software locates and searches for specified bar code symbologies on all images as that are captured on the ImageTrac. The software may be configured to read multiple 1D and 2D symbologies, front and/or rear image.

DocNetics Checks
The DocNetics-Checks solution uses a combination of technologies to determine if a document is a check, whether it is a business or personal check, and which orientation it is traveling down the track. This process determines what each character represents in the ABA line and returns the numeric set. This solution provides the ability to capture the ABA line of a check in any orientation and does not require the ABA line to be printed using magnetic ink. The ImageTrac provides the flexibility to use DocNetics Checks and hardware based MICR reader to recognize MICR lines. These 2 reads are combined to provide the best result.

4.8.7. Discuss the automated functions and manual tasks that optimize scanner performance.

Vendor Response:

The ImageTrac 6400 is the world's best, most efficient and proven high speed scanner that produces unparalleled image processing and quality of images. In conjunction, the high capacity sort pockets allow for an operator to remove documents from the pocket while scanning for maximum throughput. Using the Capture Suite Scan Client software to automatically create new batches will optimize performance and get the greatest throughput rates.

- The ImageTrac 6400 does a mechanical deskew. The *Quick* Modules system also provides electronic deskew features in its image processing tools available in the *Quick* Enhance module.
- Adaptive thresholding is handled by ibml's image quality module called Dynamic TIFF, which provides advanced image enhancement tools to give exceptional image quality to all documents, including light print forms.
- Image rotation is a standard feature available in the *Quick* Enhance module's image processing tools.
- Despeckle is a standard feature available in the *Quick* Enhance module's image processing tools.
- Border detection is a standard feature of the ibml ImageTrac 6400 scanners.
- Border padding rotation is a standard feature available in the *Quick* Enhance module's image processing tools.
- ImageTrac employs an image quality module called Dynamic TIFF. The ability to utilize Dynamic TIFF advanced image enhancement tools gives exceptional image quality to all documents.
- Additional advanced features include: Binarization, border crop, line removal, background smoothing, brightness and contrast adjustment.

4.8.8. Discuss the method of detection and identification of document scanning problems. For example: doubles detection, skew, poor image quality, blank pages, cropping, etc.

Vendor Response:

The ImageTrac 6400 is equipped with a page document feeder that has a capacity of 1,500 sheets of paper (20lb). The systems auto feeder is designed with operator ease in mind. The system allows continued operation with providing the ability to load the document feeder continually without the need for stopping the transport. The feeder is equipped mechanical Deskew and skew detection capabilities as well as mechanical Doubles Detection to ensure that each and every form is feed separately.

Furthermore, the system is equipped with Ultrasonic Doubles Detection which provides electronic detection of any situation where more than one piece of paper may have been feed and alerts the operator.

While documents travel down the track, pages are mechanically de-skewed along the registration using rollers, air, and moving belts to prevent pinching that can cause damage and wear to the paper. To further prevent capture of a skewed image, a series of sensors detect skew and halt the transport prior to image capture. If a stoppage of the track occurs, the ImageTrac's open track design allows for simple and efficient clearing of stoppages. In addition to the transports ability, the ImageTrac also has the ability to auto crop and auto deskew images within the software, allowing for a reduction in the amount of stoppages due to scanning or batch prepping issues. The makeup of standard documents or transactions may be defined in the software interface; giving the ability to have a "required document" list. A missing page will result in an alert to the user that the page is absent from the document mix.

The ImageTrac 6400 provides the ability to detect and eliminate blank pages. Ibml accomplishes this blank page deletion 2 different ways. One way is to use a combination of image height, width and file size along with user configurable tolerance levels. Once tolerance levels meet the configured thresholds, the image is considered blank and deletion of the file is performed. The second way is for the system to automatically analyze an image to see if the document is blank. This is based on several factors including pixels, recognition, image size, and bleed through. If the document is blank, it will be marked for deletion.

Figure 59 – ibml ImageTrac 6400 – 1000+ Page Feeder Capacity

Blank page detection within the system is performed the scanner level. At the scanner level, the ImageTrac 6400 scanner will detect any suspected blank pages within the system. These can either be deleted prior to temporary storage from the scanner or flagged for review within the

workflow by an operator prior to deletion. Detection and deletion can be done by document type and is configurable in the job settings on the scanner.

4.8.9. Discuss the need, frequency, and procedures necessary for rescanning of documents.

Vendor Response:

The ImageTrac 6400 comes by default with both auto feed and drop feed capabilities. The ability to use either function is available to the scan operator. These options can be used in combination or separately; for auto feeding, the document feeder tray is adjustable and can handle intermixed paper sizes (2½ X 3¼ inches to 11.75 X 17) and weights (onion skin to card stock). The tray has a capacity up to 1500 sheets of 8½ X 11 inches bond paper with continuous feed ability and a high tolerance for creased documents, staples, and paperclips using effective doubles detection technology. The drop feed capability is used in the error recovery process and allows for automated feeding of extremely difficult documents with minimal impact on throughput and costly exceptions/re-scans are virtually eliminated. The open track allows for full visibility and access to documents throughout the scanning process. This makes jam recovery quick and simple while maintaining full batch integrity.

4.8.10. If you are proposing new scanners what trade-in value will you offer WV TAX on the existing scanners?

Vendor Response:

Fairfax Imaging has provided a trade-in value for the existing ImageTrac scanners and indicated that in our Price Proposal.

4.8.11. Discuss where checks are separated from documents in your proposed system.

Vendor Response:

Checks are identified at scan time on the ImageTrac scanners and placed into a separate pocket on the scanner.

On the ImageTrac 6400 scanning platform, the checks are identified during the scanning process by using a combination of ibml's DocNetics Check software and hardware MICR recognition technologies. The recognition is done on the scanner prior to the physical endorsement on the paper and the sorting of the paper to a pocket. As an example, the checks can be outsorted to pocket 1, where other documents can be sorted to pocket 2.

4.8.12. Discuss how your solution limits or eliminates work in preparation of scanning.

Vendor Response:

The ImageTrac 6400 scanning solution with ibml Capture Suite software allows for the recognition of documents early in the process at scan time. This allows for the use of the intelligence to identify the start of a transaction, eliminating the need for separator sheets. DocNetics Recognition allows for the identification of envelopes, checks and other barcoded documents that can be used to identify the beginning or ending of a batch, transaction, or document.

The ImageTrac 6400 will process a wide array of intermixed sizes and weights of paper without the need to sort. Coupled with Fairfax Imaging's *Quick* Modules system, the solution offered will provide "virtual batching" capabilities so as to allow electronic sorting of tax forms/types into different queues for ease of downstream processing.

Section 4, Subsection 4.9:

4.9. Goal/Objective 9: REMITTANCE PROCESSING

The Department desires to have upgraded remittance processing software to the QModules we currently use. Upgraded features in regard to balancing and check 21 electronic deposit. Improved check recognition in regard to CAR and LAR portions of check. Please explain how your solution will achieve this goal.

4.9.1 Provide a diagram and accompanying narrative of the proposed remittance workflow. Begin with scanning and end with generation of posting file and bank deposit. Include the processing workflow and procedures for the mix of remittance payments.

Vendor Response:

Fairfax Imaging's *Quick* Modules product is a highly successful and award winning forms and remittance solution. *Quick* Modules is the *only solution of its kind that has been designed from the ground-up to handle remittance as well as forms processing, all under a common workflow and feeding into a common database*. Our solution contains all the features of a high-volume, high-throughput remittance processing system, as well as the traditional data capture elements found in a forms processing system and offers a robust processing environment.

Quick Modules is designed to collect images from any centralized, remote, or external scanning device and process these as transactions intermixed. The integrated workflow moves these transactions through our solution expediting those transactions with remittances based upon queues within the system. The application of several recognition engines provides the best possible translation of image to data for both structured and unstructured forms. The validation and balancing step ensures the most accurate remittance processing possible for eventual electronic transmission to the bank via Check 21. Stringent and robust business rules are provided to clean the data captured from the wide variety of tax forms and transmit that data and images to the integrated tax systems.

The solution includes real-time monitoring and reporting of the system performance. Dashboard displays are provided to track the items throughout the workflow. The system provides high level views of the workflow to determine production gates and identify processing queues. Deposit reports and statistical reporting is a key feature of our solution. In addition, the Fairfax Imaging solution provides full capabilities to WV Tax to self-support the solution for both legislative changes and adjustments to the process.

Fairfax Imaging has supplied a detailed system description including diagrams and narratives in Section 4, Subsection 4.5, item 4.5.1 on page 66 of this proposal response. Please refer to that section of this response for details.

4.9.2 Discuss the workflow for each for the following transaction types:

4.9.2.1 Single Transaction

Vendor Response:

Single transactions are processed following the combined workflow within *Quick* Modules. A single transaction is determined when a single tax form or voucher is followed by a single remittance. Once scanned and classified, single transactions can be grouped together for processing in virtual batches by tax type following business rules established by WV Tax.

When processing singles, the amount due from the tax form or voucher is compared to the amount captured for the accompanying remittance following WV Tax business rules. Once the amount due is balanced to the amount paid, then the check can be queued for Check-21 processing.

All form data fields on the tax form or voucher are processed automatically following WV Tax business rules. Should operator intervention be required, the *Quick* Modules Workflow automatically will send the transaction to the appropriate *Quick* Key queue. This can happen before or after the remittance is balanced based on business rules. This will allow WV Tax to get money deposited in the bank quickly.

4.9.2.2 Multiple Transaction

Vendor Response:

Multiple transactions are processed following the combined workflow described above. Multiple transactions can be scanned mixed with other transactions however most clients will process these separate from singles. A multiple transaction is determined when more than one page is followed by a remittance or one page is followed by more than one remittance, or multiple pages are followed by multiple remittances. Once scanned and classified, multiple transactions can be grouped together for processing in virtual batches by tax type following business rules established by WV Tax.

All fields on the forms are processed automatically following WV Tax business rules. If the total of remittances are equal to the total due line on the tax form, the transaction is in balance. Should operator intervention be required, the *Quick* Modules Workflow will send the transaction to the appropriate *Quick* Key queue.

4.9.2.3 Matched Transactions

Vendor Response:

Following the workflow above, a matched transaction occurs when the tax due captured from the tax form(s) matches the total of the remittance following WV Tax balancing rules. If the rules pass, the then the transaction is matched or balanced.

4.9.2.4 Unmatched Transactions

Vendor Response:

Following the workflow above, a mis-matched transaction occurs when the tax due captured from the tax form(s) does not match the total of the remittance(s) following WV Tax balancing rules. If the rules fail, the transaction automatically is queued for appropriate *Quick* Key balance queue. If after manual intervention the transaction comes into balance, then the transaction is considered matched. If the transaction continues to be mismatched due to taxpayer error, the transaction is sent to the *Quick* Review queue for further review and resolution.

Within *Quick* Review, the transaction is reviewed by a more senior person. The transaction can be returned to *Quick* Key with comments, accepted as-is, or it can be removed from the workflow.

4.9.2.5 Splits Transactions

Vendor Response:

Split transactions where multiple tax types are present in one single transaction is processed within the *Quick* Modules system. Based upon the allocation rules of WV Tax, the system can determine the amount to apply to each tax type within the split transaction.

4.9.3 Describe your Check21 I Image Cash Letter solution and processing flow.

Vendor Response:

The *Quick* Modules 5.0 solution incorporates electronic presentment of the payment items for deposit electronically without the need to manual encode and deposit U.S. based check items. Within the Fairfax Imaging solution the *Quick* Check 21 flow consists of three different modules. The first module controls which information is gathered from the database and generates the Check21 file, also known as an "X9.37" or "937" file. The second module transmits the Check21 files to WV Tax's bank, listens for acknowledgements from the bank, and updates the status of transmitted items. The third module provides Check21 reporting, the ability to fix rejected items and deal with any issues that may arise in the process.

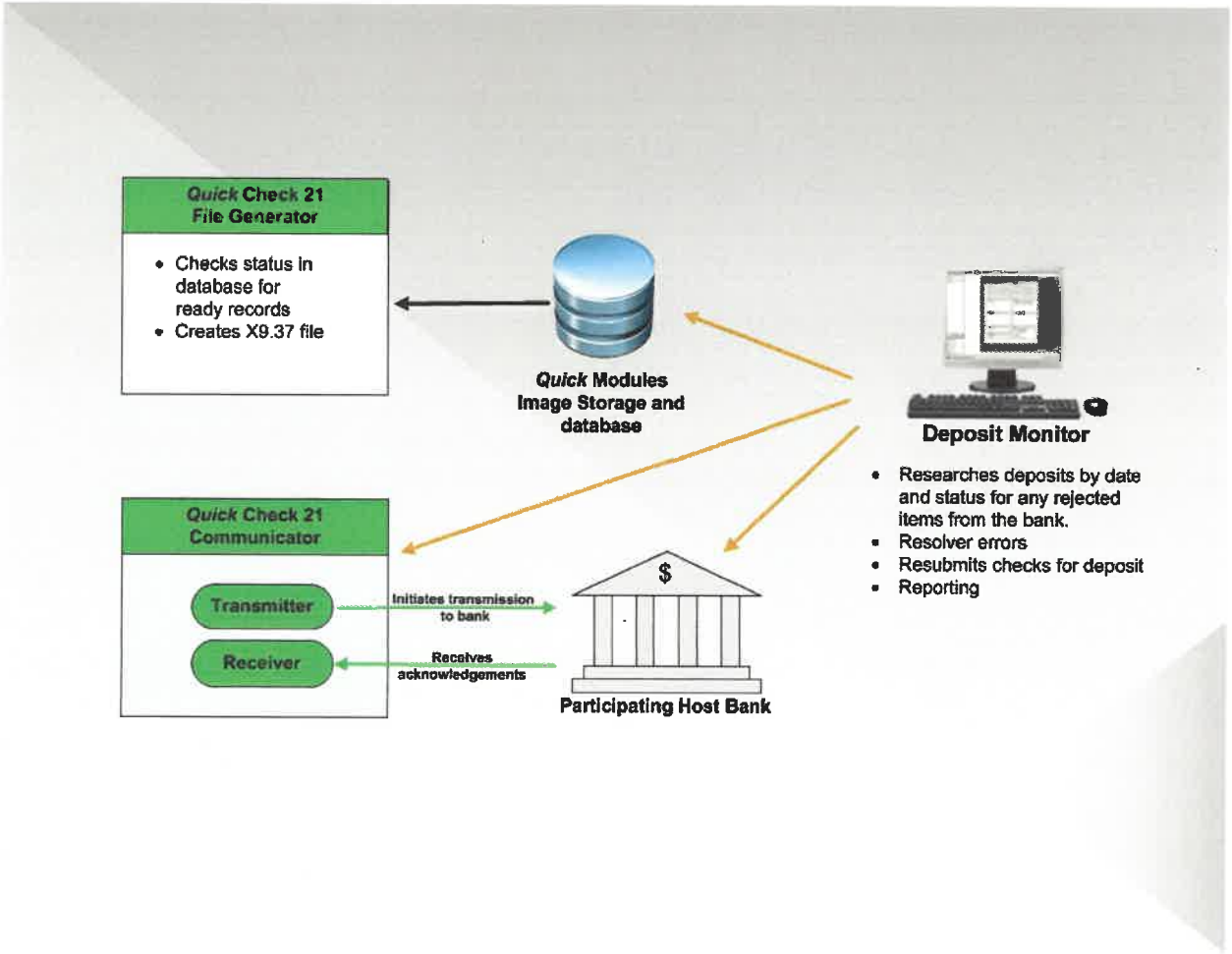


Figure 60 – Check 21 Process Workflow

The Check 21 process provides electronic deposit to as many deposit banks as is necessary to fulfill WV Tax needs. The *Quick* Check 21 processing modules are designed to generate the proper "937" file structure, communicate with the depositing institution and perform resolution to any rejected items or other issues. Image Quality Assurance (IQA) is performed for each set of image records to ensure compliance to Federal Reserve standards for electronic deposits. This includes:

- An individual item must have corresponding front and back image segments.
- Each image segment must have a minimum resolution of 200 dpi.
- Each segment must be black and white and in the TIFF 6.0 CCITT Group 4 compression format.
- Missing/torn corners analysis is performed to determine if any of the document's four corners are either folded or missing.
- The document length is calculated by dividing the horizontal pixel count by the pixel density (dots per inch) to ensure it is within standard check length specifications.
- The document height is calculated by dividing the vertical pixel count by the pixel density

(dots per inch) to ensure it is within standard check height specifications.

- Document skew is measured to determine that the image is of sufficient orientation and presentment.
- Pixel count is performed to ensure acceptable document image quality and noise ratios are achieved and that an image is not too dark for presentment.

***Quick* Check 21 File Generator**

The Check21 File Generation module runs as a service without any user intervention and is controlled by an XML configuration file. This file can be edited to change the behavior of the service. The module can be set to query the WV Tax database at whatever time and frequency required. By default, all checks that are currently ready to be processed are put into the Check21 file. If business rules require checks to be held for a specified reason, the module can accommodate those needs.

Once the range of data has been specified, all of the necessary information is pulled from the WV Tax database and a Check21 file is created. All of the data that has been pulled is marked as "Processed" to ensure that it does not get sent twice. The completed Check21 file is then placed in a specific folder (WV Tax specified) to await transmission. Check 21 also compares transactions against the database to ensure no duplicate items. It then enables an operator to delete any duplicates found. Prior to transmission, any required inclusion onto the image of data such as check amount or endorsement can be annotated into the image.

***Quick* Check 21 Communicator**

The communication portion of the Check 21 flow consists of two processes:

- **Transmitter**
  The Check 21 transmitter will automatically send any files that have been processed during the day according to a configurable schedule. Files can be collected and sent to the bank all at once, or can be sent as multiple files throughout the day. The transmitter supports FTP w/ PGP encryption, SFTP, FTPS, and HTTPS transmission methods.

- **Receiver**
  The Check 21 Receiver listens for acknowledgements from the bank to determine whether or not the file was accepted or rejected. The actual type of acknowledgement is defined by the bank and is usually either an email or a file that must be captured by the Check 21 receiver and interpreted. If a file is accepted with no errors then all of the checks that were contained within the accepted file are flagged as accepted and are reported as such by the bank. All items that were not rejected are flagged as successful. Upon receiving notice that any item was rejected, the Check 21 system will mark the rejected items as such and adjust totals as necessary to match the bank's records.

***Quick* Check 21 Deposit Monitor**

Deposit Monitor is an operator task item within the workflow for the Check 21 process which provides reports on check aging (if checks are not immediately deposited), invalid checks, and the deposits sent through Check21. It also provides functionality to fix rejected items and to mark them for redeposit. Deposit Monitor tracks the deposits after they have been created. Any

of the data tables shown in Deposit Monitor can be exported to a Comma Separated Value (CSV) file.

The operator is capable of viewing the following types of views for reporting/status:

- Daily and Weekly Summaries
    - Daily Summaries show all Deposits that were Transmitted, Accepted, Rejected, or Deposited Manually.
    - Weekly Summaries is similar to the Daily Summary except that it shows all Deposits Transmitted, Accepted, Rejected, or Deposit Manually for that week.
- Pending Deposits, Deposits by Date, Deposits by Account
    - Pending Deposits are defined as Deposits with status indicating Ready for Processing, In Processing, Held, Awaiting Transmission, and Transmitting. Searches for all Pending Deposits may be limited by a single date or date range.
    - Deposits by Date allow searches for all Deposits that have been Transmitted, Accepted, Rejected, or Deposited Manually on the selected date or date range.
    - Deposits by Account allow searches for Deposits that originated from selected Sites and were targeted at selected deposit accounts.
- Pending Items, Rejected Items, Aging Items, Invalid Items
    - Pending Items are defined as those with statuses that are Ready For Processing and Waiting on Backend.
    - Rejected Items are defined as having been rejected due to image quality analysis, MICR, amount, and duplicates.
    - Aging Items are defined as items that have been sitting in the system with a Waiting on Backend or Rejected status for more than one day.
    - Invalid Items are not the same as Rejected Items. These are items that fail due to some internal business rule supplied by WV Tax. These items never get deposited or processed but are reported upon for tracking and disposition.

There are four different levels of users for Deposit Monitor: Reader, Editor, Supervisor, and Administrator. Readers are allowed to do all searching, but when viewing deposits or items they may only add comments. They cannot change any existing information. Editors can do everything that Readers can do, but they can also update deposit statuses from Transmitted to Accepted, Rejected, or Manually Deposited. They can also fix rejected items. Supervisors can do everything that Editors can do, but they can also update items from an Accepted status to a Rejected Status or from Accepted to Deposited Manually. Administrators can do everything.

4.9.4 Describe your ability to perform edits on remittance payments and associated dollar amounts. Are these edits user configurable? If yes,

describe the process for editing. If not, please describe how the edits are modified.

Vendor Response:

Quick Modules provides the ability to perform edits on remittance payments and all data fields captured including dollar amounts. Edits are performed automatically before the transaction is presented to an operator. If all fields pass WV Tax business rules and the transaction balances with the remittance, the transaction can be completed without operator intervention. Fields that do not pass business rules are automatically presented to an operator for correction in a *Quick* Key Queue.

Edits, called validation rules, are easily setup within *Quick* Modules Studio (QMS), many without the need of programming. For each form and field within the form, the user is able to set the specific business rules associated with that dataset. Should a customized rule be required, it is easily added to the table and can be selected with point and click ease. All business rules are stored as libraries for future and common use across all applications.

WV Tax can easily add and modify edits using QMS. Vendor assistance is not required. QMS offers the ability to assign standard edits, create custom edits, or modify existing edits. The edit can be tested within QMS prior to deploying to the test environment. Once deployed into the test environment, modifications can be thoroughly tested without affecting the production environment.

4.9.5 Does the solution include a MICR-line database? If so, what applications within the proposed solution use this database?

Vendor Response:

Included in the design for *Quick* Modules is our *Quick* Research module. *Quick* Research is designed to improve the check only process where no form accompanies the payment instrument. *Quick* Research utilizes a database table within the systems SQL database. This MICR line database associates MICR line data with an account number by accumulating data within the database built over time. It attempts to post the check only to the account automatically or provide the operator with the research capability, in case either there is no match or multiple records exist. If it finds a match in the database, it can either present the results to the operator or automatically select the tax type and associated payment elements.

4.9.6 Describe the ability of the proposed solution to identify and re-prioritize large dollar amount transactions. Can users define large dollar amounts edits?

Vendor Response:

Using workflow business rules, large dollar items can be identified and given a higher priority within workflow queues. This will ensure large dollar transactions are processed first. WV Tax

will have the ability to set up business rules as required within the system.

4.9.7 Describe the solution's ability to identify and reject or accept foreign (non-U.S.) items.

Vendor Response:

When *Quick* Modules processes the MICR line on a remittance, the bank Routing and Transit (RT) number is verified using the American Banking Association (ABA) algorithm for U.S. banks. If a dash character is in the 6th position of the RT indicating a Canadian check, the check is automatically considered foreign. The presence of a foreign check will cause the item to be flagged for removal from the workflow and to perform manual deposit.

4.9.8 Describe the proposed solution's ability to allow for data entry corrections.

Vendor Response:

Throughout the *Quick* Modules solution, specific business rules can be invoked to ensure accurate capture of the information prior to posting and deposit. These business rules can vary from simple validation rules like range and date checks to complex business rules involving table lookups and executing algorithms using information from several data items on multiple forms. *Quick* Modules user exits are capable of handling virtually any business rule that can be clearly defined and for which the required data can be made available for retrieval from a table, database, or other electronic source.

Quick Key offers four sets of field validation rules.

- **Standard Generic Rules** -These are the simple rules that apply to every field, and describe summarily the nature of the field. The different types currently supported are:
- **Generic Data Types** - Fields can be specified as being one of several different data types and are validated as such. Some of the more commonly used field validation types are phone number, zip code, date, amount, and social security number.
- **Specific Data Types** – Fields can be pre-configured to only allow certain characters to be a part of the data entered. For example, if a field can contain any numeric character and the letter 'M', this validation rule will ensure only those characters are entered as a part of this field.
- **Range** – Numeric, date, and amount fields can have a range value applied to them. This will ensure the information in this field falls between the values allowed for the range check.
- **Field Data Length** – The minimum and maximum number of characters allowed in a field can be set.

Table Lookup Rules – Any field can be validated through a file lookup. File lookups support any format containing single- or multi-fielded, character delimited data. Files can contain

extraneous data and do not have to be formatted specifically for use by File Validation. Rather, any common column within the file can be used for performing field validation. Moreover, *Quick* Key offers a convenient way to enrich the tables. For instance, as new data are discovered that were not part of the table, they are added automatically to the table to be accessed in future attempts.

Database Lookup Rules – Any ODBC compliant database can be used to validate field information. Through the use of a SQL like statement, it is possible to specify a table and column within the database that will be used to ensure the field information is contained within the database.

Programmed Rules - (User Exits) - Although the *Quick* Modules 5.0 system is highly configurable with the ability create a library of selectable business rules without writing code, the system does have the capability to create User Exit routines for any specialize and unique validation event. These more sophisticated rules or events in the workflow can be created through using a .NET routing. Such programming is simple and either technical team (Fairfax or WV Tax) may perform it.

In addition to single field validation rules, *Quick* Key offers inter-field (or inter form within the transaction) validation rules. This is accomplished by programmatically applying pre-established rules between the fields in the form.

Quick Key also allows the user to attach a note to any specific image within the submission. This note will remain with the image, and when the submission is routed to any other queue, including review and repair, they will be able to view the note as well as the image.

In the *Quick* Modules system, all images of one document are always linked together by the data structures. Thus, *Quick* Key will always allow the operator to "connect," "view," and "analyze" images to form one document. All of the visual (client modules destined to be used by an operator) and graphical modules within the *Quick* Modules system provide the ability to zoom easily and readily with one mouse click. We designed these zoom features to provide ease in the data entry, image viewing, and overall ergonomics of the product suite.

Quick Key is the most versatile and comprehensive data entry and correction product on the market.

4.9.9 Describe what audit trails are provided in the proposed solution.

Vendor Response:

Quick Modules maintains an audit database where every operation is logged. Data in the log includes the Form Name, the Field Name, the Operator ID, the Old Field Value, the New Field Value, and a time and data stamp when the change was made. Automatic operations are also logged when data has been changed by an automatic process. The Data Change Tracking Report is standard report that is provided to document changes.

4.9.10 Describe the system interface capabilities with external files (e.g. Remote Data Capture).

Vendor Response

The *Quick* Input module is designed to import data from virtually any source. Remote Data Capture can be implemented by scanning work to a specific folder on the server and configuring *Quick* Input to ingest into files into *Quick* Modules. Multiple data formats are supported including ODBC compliant databases, standard image files, text files, PDF/A files, and email.

Section 4, Subsection 4.10:

4.10 Goal/Objective 10: DATA AND DOCUMENT RECOGNITION

The Department desires to have improved document recognition in regard to tax returns and limited user intervention resulting in less keying issues along with improved data extraction to backend system. Please explain how your proposed solution will achieve this goal.

4.10.1 Describe the automated data recognition technologies available with your proposed solution

Vendor Response:

Quick Capture, our recognition module, includes all of the recognition technology including Machine Print, Hand Print, MICR, CAR/LAR, 1D/2D barcode and mark sense. *Quick* Capture processes structured as well as semi-structured form types. For structured form types the process involves recognizing predefined locations of where data resides using a template previously set up. For semi-structured forms processing the system automatically searches for key elements of the form where the data may reside in order to perform recognition. Once identified, the system classifies the document type and performs the appropriate recognition steps.

The automatic data capture stage (*Quick* Capture) accepts images, from the previous stage (*Quick* Enhance), and outputs the best available ASCII result data for the characters within the images furnished to it. This module runs in an unattended mode on the server and as such doesn't require any operator interaction in order for it to perform its specific functions.

For unstructured form recognition, the system proposed includes Fairfax Imaging's *Quick* Freeform module. *Quick* Freeform allows for the recognition of tax forms machine printed by vendors and searches for key words, form attributes, and data locations to determine the location of data to be capture thus providing flexibility into the recognition process for forms variations.

4.10.2 Provide a discussion of the features, functions, and limitations of each recognition technology discussed in the previous question.

Vendor Response:

Quick Capture processes data fields containing constrained hand-print numeric, alpha, and alphanumeric fields, machine-print text on form items, barcode recognition, as well as courtesy amounts and legal amounts on payment items such as checks. *Quick* Capture uses some of the world's most powerful Optical Character Recognition (OCR), Intelligent Character Recognition (ICR), Optical Mark Recognition (OMR), barcode (BCR) and check (CAR/LAR) engines.

By combining the advanced form identification features of *Quick* Enhance and *Quick* Capture to recognize form ID, 1D, or 2D barcodes or form layout the system can identify records within a transaction without the use of separator sheets. Identifying different formats of the same form

within the transaction is then accomplished.

Quick Capture uses multiple recognition classifiers fused together for OCR, ICR, OMR, and barcode recognition (BCR); Courtesy Amount Recognition (CAR) and Legal Amount Recognition (LAR). This multiple engine technology allows *Quick* Capture to be a versatile recognition system processing all field types across all form types, including forms and checks. The CAR and LAR can be applied to the remittance stub/return or check. *Quick* Capture fuses the combined power of the engines to produce the best recognition in the industry.

The *Quick* Capture module is capable of reading the following formats:

- Hand print Numeric
- Hand print Uppercase Alpha
- Hand print Upper/Lower Case Alpha
- Hand print Alpha/Numeric
- Machine print multi-font
- Machine print OCR A & B
- Machine print E13B
- Machine print MICR
- Machine print E7B
- Most commercially available barcodes, including but not limited to 2of5, 3of9, Postal, and Two Dimensional High Density formats
- Courtesy amounts on checks
- Legal amounts on checks
- Amounts on money orders
- Barcodes (1D, 2D, QR codes, Post net)
- Optical mark recognition (OMR)

For checks, *Quick* Capture recognizes MICR fonts with a high degree of accuracy by segmenting each character, including ABA and CPA symbols, and reading each character optically.

Quick Freeform provides an automated recognition method of tax forms printed by vendors using machine print, but may not layout the form locations of the fields in the same location as necessary for *Quick* Capture to perform the reading. *Quick* Freeform uses a specialized recognition methodology designed by Fairfax Imaging to locate the relevant data fields by searching for keywords, and location of the text.

4.10.3 Describe how document identification occurs within your proposed workflow.

Vendor Response:

Quick Enhance is the module responsible for identifying scanned or received documents, and

performs several enhancement algorithms on the image to improve its readability. This module runs in an unattended mode on the server without the need for operator interaction.

Quick Enhance performs the identification process in one of three ways using the following hierarchical method.

1. The best form identification method is the barcode recognition method. Barcodes can be read with the highest level of accuracy. *Quick* Enhance utilizes its barcode recognition technology to automatically identify the image. *Quick* Enhance supports most major barcode formats such as 2 of 5, 3 of 9, high density, 2-dimensional, or postal barcode.

2. If the form does not have an identifying barcode, or if the barcode recognition failed for any reason (torn or stained barcode, etc.), *Quick* Enhance will locate any set of distinguishing characters on the image and recognize those using OCR/ICR technology. These characters may be any readable information that clearly distinguishes the form from its peers.

3. If all the above fails to identify the form, *Quick* Enhance will automatically default to image processing and identification techniques by using morphological operations and form contents such as lines, boxes, and text.

Any image that fails automatic form identification (or was not identified at the time of scanning on the ibml) is automatically sent to the systems *Quick* Review module for form ID.

Once the forms are classified, and depending upon WV Tax's specific business rules the system can perform electronic grouping of similar/or like documents together. In doing so, the system can provide efficiencies in performing the subsequent steps in the workflow, namely the recognition process, operator balancing and validation steps. By grouping forms of similar form or tax type provides a common form type to the operator in order to assist them in the most efficient and judicious manner for balancing, correcting data and performing validation routines. This process is configurable within the system and operates within the workflow server process of the system.

4.10.4 In validating a tax return with data, discuss how your system identifies suspected fields/data in error, particularly sub-total and total fields where the math as described on the form does not compute accurately.

Vendor Response:

The proposed *Quick* Modules solution includes easily configurable math block edits set up to ensure accuracy of data captured from tax returns. The proposed solution will provide WV Tax with the ability to create math block rules throughout the workflow. Simple and complex math blocks can be assigned to any form field required and also to any balancing rule. If the math block rule fails, the field will be presented to the operator in the *Quick* Key

application in order to confirm if the value was computed accurately.

Math block rules and all other validation rules can be configured by WV Tax using the web-based administrative tool called *Quick* Modules Studio (QMS).

4.10.5 Describe the data entry function for data completion, on a document where portion of the data has been recognized by an automated recognition function.

Vendor Response:

Throughout the *Quick* Modules solution, specific business rules can be invoked to ensure accurate capture of the information prior to posting and deposit. These business rules can vary from simple validation rules like range and date checks to complex business rules involving table lookups and executing algorithms using information from several data items on multiple forms. Once the data is captured and validated against all the rules associated with a field the operator does not need to perform any data entry. If a field requires additional validation or data completion it will be presented to the operator in *Quick* Key, with the image on the left of the screen with the field highlighted and the field value can be completed by the operator.

4.10.6 Describe how your system minimizes misreads, low confidence levels, field errors, character substitution and other problems normally associated with automated recognition.

Vendor Response:

The ibml ImageTrac 6400 will provide the *Quick* Modules workflow with the cleanest image possible. *Quick* Enhance, the image improvement stage, can automatically correct skewed images; perform horizontal and vertical registration; remove random noise, dot-shaded regions, and unwanted lines; and correct inverse text, as well as ensure compliance with banking image quality standards for image exchange. *Quick* Enhance is also responsible for eliminating any noise, such as boxes and lines on an image, to order to ensure a clean capture of the field and reduce any field errors.

Once field data is captured validation rules are applied to ensure field accuracy. Low confidence, data type and length, table lookups, and many other validation rules are built-in in the proposed solution. Validation rules can be configured by WV Tax using the web-based administrative tool called *Quick* Modules Studio (QMS).

4.10.7 Discuss the level of data verification/validation that can be performed against individual fields, documents, and returns by your proposed solution.

Vendor Response:

Throughout the *Quick* Modules solution, specific business rules can be invoked to ensure accurate capture of the information prior to posting and deposit. These business rules can vary from simple validation rules like range and data checks to complex business rules involving table lookups and executing algorithms using information from several data items on multiple forms. Validation rules include:

- Confidence levels
- Data type, length, and range
- Database/Table lookups
- Math blocks
- Regular expressions
- Condition blocks
- Custom User Exits and many other validation rules are built-in in the proposed solution.

Validation rules can be configured by WV Tax using the web-based administrative tool called *Quick* Modules Studio (QMS). For more information on QMS please see please see the solution description in Section 4.9.1. Validation rules can be performed against forms or form fields.

4.10.8. Can you apply courtesy amount recognition and legal amount recognition to the check process?

Vendor Response:

Yes, both Courtesy Amount Recognition and Legal Amount Recognition are supported within the proposed system.

Section 4, Subsection 4.11:

4.11 Goal/Objective 11: NEW APPLICATION SETUP PROCESS

The Department desires the selected vendor to perform all new application setup initially and to provide training with designated employees during all new application setups. In addition, vendor is expected to provide training material as it relates to our Departments setup. Please explain how this goal will be met.

4.11.1 Describe the methodology/technology employed for forms/document recognition. Do you employ templates, free form, etc.?

Vendor Response:

Quick Capture, our recognition module, includes all of the recognition technology including Machine Print, Hand Print, MICR, CAR/LAR, 1D/2D barcode and mark sense.

Quick Capture processes structured as well as semi-structured form types. For structured form

types the process involves recognizing predefined locations of where data resides using a template previously set up. For semi-structured forms processing the system automatically searches for key elements of the form where the data may reside in order to perform recognition. Once identified, the system classifies the document type and performs the appropriate recognition steps.

Quick FreeForm, an additional recognition module, applies a technologically advanced approach known as Unstructured Templates. This approach combines robustness with maximum flexibility, and uniquely addresses the needs posed by the tax forms processing challenge. In traditional form processing applications, there is a logical form which holds the definition of a set of data fields of interest. Moreover, in that context, not only the nature of the data fields must be well defined, the exact location of these fields must also be known, and be fixed. The complete collection of definitions of both the data fields and their locations, along with processing instructions of all kinds, are included on what is typically referred to as a form template. Traditional form processing requires at least one template per each instance of a form definition. This approach and technological state of affairs has been also called 'structured form processing.'

In the reality of tax forms, forms may vary due to two main reasons: 1) the data fields in them change from time to time (we'll call that a form variant), and/or 2) the location of the data is different across what we call form variations. The latter may arise due to inconsistent form reproduction, different sources of forms, etc. Nevertheless, in the traditional form processing context, each such form variant and/or variation (together instances) requires the existence of its own template to support processing batches of forms containing multiple instances. Ultimately, the work involved in maintaining large libraries of templates in that context of structured forms is extensive, and the associated cost is high.

The *Quick* FreeForm unstructured template combines all the logic of the form design, but is not limited by the "image properties" of that design. Since the logic of the form design is the same for all form variants, it will apply to all derivative variants. Practically, only one unstructured template per form or its variations is needed, perhaps with very few exceptions in rare cases, and all its variants are processed using that template.

4.11.2 Describe the process for setup of a new tax I application. Include in your description what features and functionality are included in the base delivered system and what types of application setup require development effort.

Vendor Response:

Quick Modules Studio (QMS) is the module responsible for setting and configuring the *Quick* Modules system, in a highly intuitive, graphical, and user-friendly manner. *Quick* Modules Studio, referred to as "QMS," is a Web-based administrative tool used to manage and develop the solutions required to properly implement *Quick* Modules. It serves as a centralized

development environment that allows the development, testing, and deployment of applications within *Quick* Modules.

Creation of new forms and testing new forms can be done in QMS through the Forms Designer Page. Adding fields to the form's recognition setup is easily accomplished in this tool. In addition, the recognition engine you need to use for the field can be defined here in the Work Tools. WV Tax will have full access to QMS and its features in order to modify existing applications or add/remove applications. Application templates can be shared across the workflow or imported from one batch type to another.

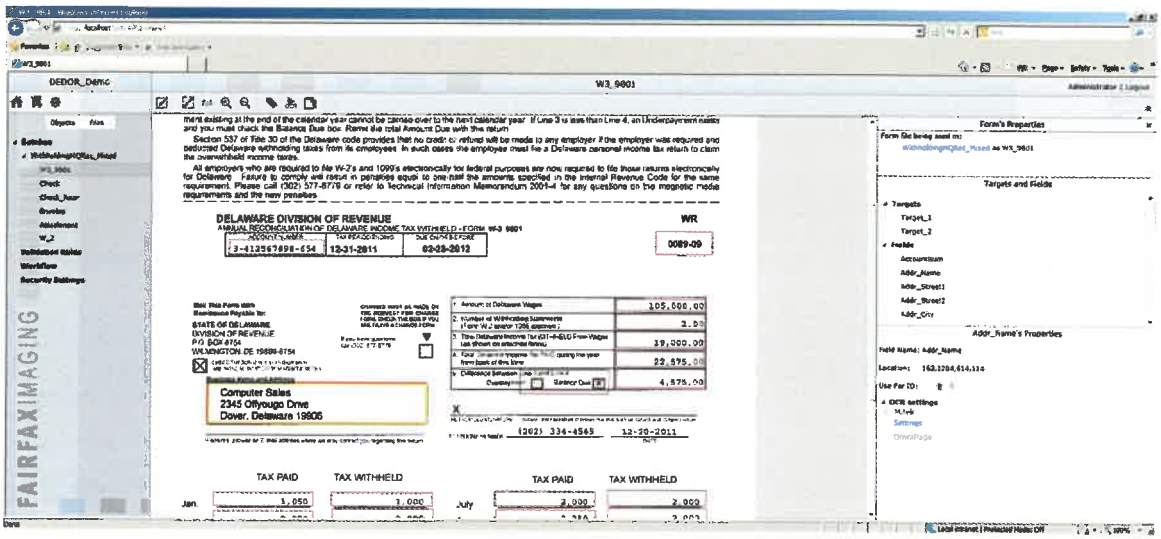


Figure 61 - QMS Form Configuration Screen

Validation rules are easily setup, many without the need of programming and become libraries to the application(s) that can be selected and maintained within the system. For each form and field within the form, the user is able to set the specific business rules associated with that dataset. Should a customized rule be required, it is easily added to the table and can be selected. All business rules are stored as libraries for future and common use across all applications.

4.11.3 Describe the skill level and experience required to modify a tax I application.

Vendor Response:

Quick Modules Studio (QMS) is a Web-based administrative tool used to create, modify, and support the applications for tax operations. The skills and experience required to set up a new tax / application using QMS are as follows:

- Intermediate to advanced Windows concepts
- Graphical programs understanding
- Microsoft .NET
- Understanding of tax operations and requirements for WV Tax
- Understanding of QMS and *Quick* Modules workflow/system

It should be noted that QMS allows configurations to be created and applied. The possible use of a custom User Exit to perform a unique business rule may be required.

4.11.4 What development language I tools are used to make changes to the application programs and system reports?

Vendor Response:

Changes to applications are accomplished using QMS. Any custom programming can be done using Microsoft .NET and can be applied in the solution as a user exist.

System reports are managed within the Microsoft SQL Server Reporting Services (SSRS). All reporting data is located in the Microsoft SQL Server database. A dedicated reporting module, *Quick* Reports, is included in the proposed solution for generating and viewing system reports.

4.11.5 Describe the process, skill level, and experience required to create and/or modify WV TAX specific reports.

Vendor Response:

Reports are managed within the Microsoft SQL Server Reporting Services (SSRS). All reporting data is located in the Microsoft SQL Server database. WV Tax can create custom reports using the Microsoft SSRS Report Builder included with the SQL Server.

Understanding of Microsoft SQL Server and SSRS is required in order to create WV Tax specific reports.

4.11.6 Is the data entry screens pre-developed ordo they have to be built from scratch?

Vendor Response:

All data entry screens are included in the data entry module *Quick* Key and are pre-configured to display the relevant areas for a data entry operator to perform their duties. These are not built from scratch.

4.11.7 If your product offers development templates, describe what the template provides? Please provide sample templates.

Vendor Response:

The proposed solution provides development templates within QMS. Templates are used for field recognition and data capture, and for applying validation rules.

4.11.8 What development tools are required? Are they purchased and licensed separately?

Vendor Response:

QMS is the module responsible for setting and configuring the entire *Quick* Modules system, in a highly intuitive, graphical, and user-manner. QMS is a Web-based administrative tool used to manage and develop the solutions required to properly implement *Quick* Modules. It serves as a centralized development environment that allows the development, testing, and deployment of applications within *Quick* Modules.

A licensed copy of QMS is included in the proposed *Quick* Modules solution.

4.11.9 What types of system customization are typically required?

Vendor Response:

System customization is never required when using Fairfax Imaging's award winning *Quick* Modules software suite. Over the years Fairfax Imaging has added most tax related custom rules as standard validation rules that can be easily applied to any field or form. Fairfax Imaging also pioneered the "user exit" concept. Under this paradigm, the system core product contains extensive functionality that can accomplish most of the imaging and data capture needs of the end user tax client. To ensure that unique requirements and business rules of WV Tax are satisfied, custom user exits can be implemented throughout the workflow. This technique results in the product being tailored to WV Tax's needs while preserving and not altering the essential system core components, which have been extensively tested and hence do not need to be re-written.

4.11.10 For each type of customization:

4.11.10.1 Please explain what level of expertise is required in order to make customization?

Vendor Response:

Quick Modules Studio (QMS) is a Web-based administrative tool used to create, modify, and support the applications for tax operations. The skills and experience required to set up a new tax / application using QMS are as follows:

- Intermediate to advanced Windows concepts
- Graphical programs understanding
- Microsoft .NET
- Understanding of tax operations and requirements for WV Tax
- Understanding of QMS and *Quick* Modules workflow/system

It should be noted that QMS allows configurations to be created and applied. The possible use of

a custom User Exit to perform a unique business rule may be required.

4.11.10.2 Who typically performs the customization (you vs. customer)?

Vendor Response:

It is common practice for Fairfax Imaging implementations that the initial configuration, setup, and any customizations are performed by Fairfax Imaging staff. Upon completion of the implementation and technical support training provided to WV Tax, future changes and modifications can either be performed by Fairfax Imaging or WV Tax's staff can perform customization to the system.

4.11.11 Discuss the procedures for adding additional data entry fields.

Vendor Response:

Adding additional data entry field to a form is very simple using QMS.

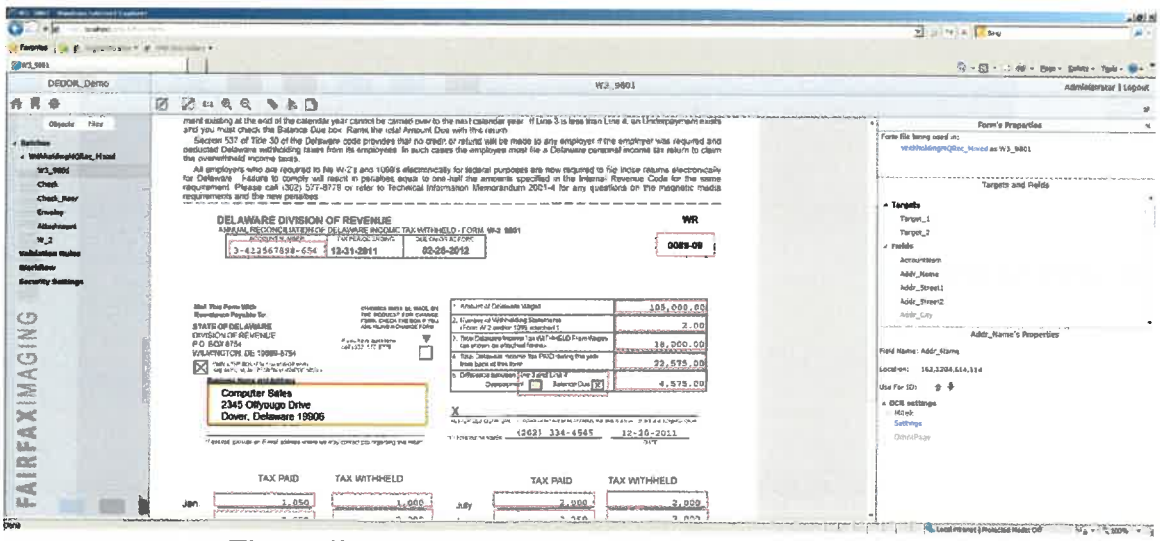


Figure 62 - Defining Fields for Recognition within QMS

When a form is opened in QMS the administrator is presented with the template and all existing fields highlighted. Once in Edit mode a field can be selected on the form itself or by using the navigation pane on the right. The selected field is highlighted in yellow on the template and its properties are displayed on the right of the screen for ease of access. To make changes to an existing field you simply click on the OCR Settings link or you can rename the field and change the order of how it is displayed.

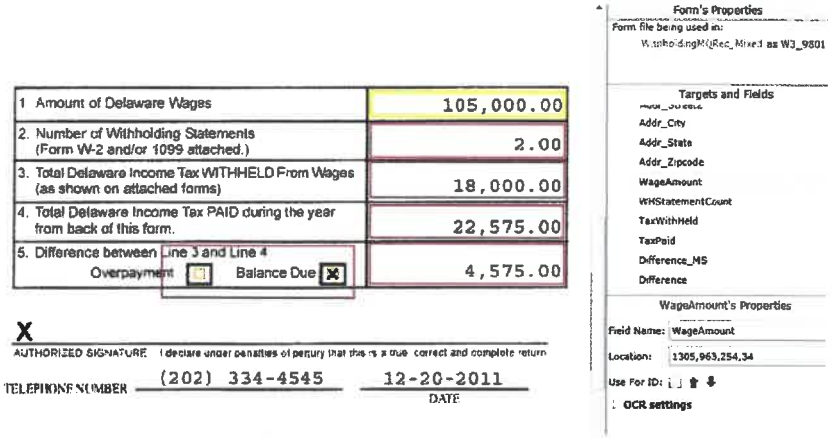


Figure 63 - Field highlighted in QMS

To create a new field simply select the "Draw Field" icon from the menu bar and draw a box around the new field to be created.

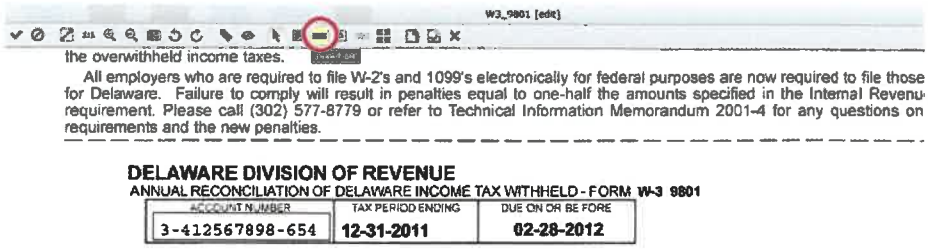


Figure 64 – Menu Bar in QMS

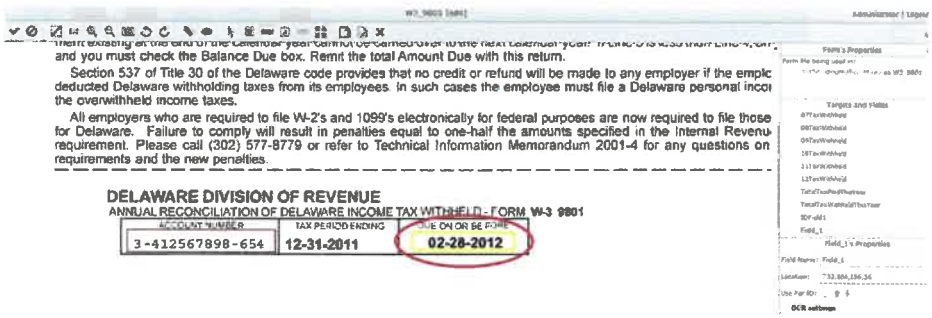


Figure 65 – New Field Drawn in QMS

Once the box is drawn around the new field a name can be assigned in the field properties. Additional field properties are easy to access within QMS, simply click on OCR Settings to make the necessary changes.

QMS provides an easy way to test the new field while designing the form. Simply click on Recognize and view the results of the newly created field. Confidence levels are also displayed within the results window.

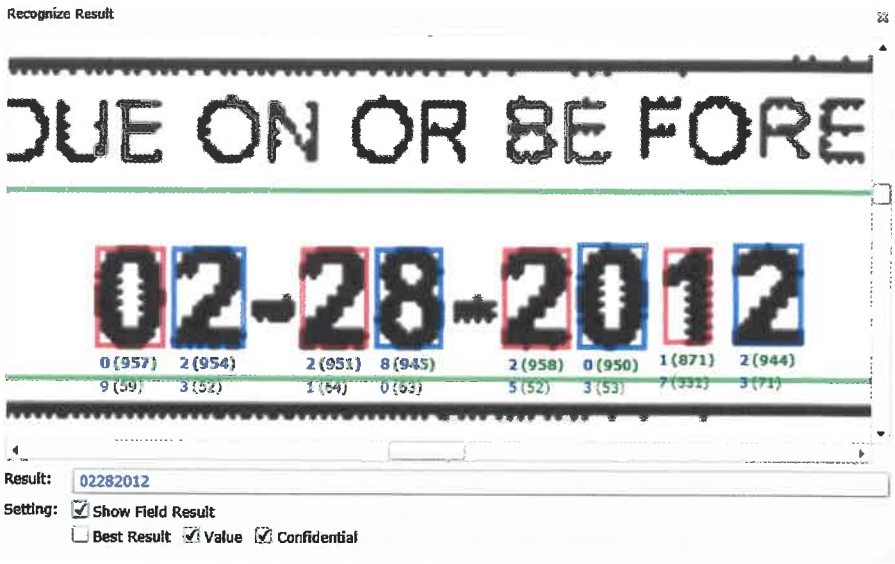


Figure 66 – Field Recognition Results

Once satisfied with the settings of the new field created the form is saved and is now ready to be deployed in the system.

4.12 Goal/Objective 12: SYSTEM OPERATION AND MAINTENANCE

The Department desires a system operation that requires minimal user intervention. We desire support and maintenance that allows immediate response should there be an issue. Please explain how this goal will be met.

4.12.1 Discuss your hotline / technical support. Include hours of operation and level of support available.

Vendor Response:

Fairfax Imaging recognizes that continued health and ongoing support of the proposed system is vital to the success of our clients. As such we offer a comprehensive approach to the task of maintaining the system and providing updates to the proposed solution. One of our major discriminators is our strong methodology when it comes to maintenance and support. Our customers will testify that we have a responsive and proven process for maintenance.
As part of our maintenance and support coverage, Fairfax Imaging will provide ***complete*** support coverage for all hardware and software provided by Fairfax Imaging. This feature of our Support approach has consistently proven to be vital to the success of our implementations and provides a single source approach for our clients for ease of access, coordination, and resolution of issues.

Primary hours of operation and coverage are 8:00 AM to 5:00 PM in the time zone of WV Tax. However, Fairfax Imaging can shift this primary period of coverage or provide support 24/7 if required by WV Tax. A primary period of maintenance will be established for this solution and written into the maintenance contract. Cost of support is covered under a single annual maintenance price and covers all maintenance as defined in the maintenance contract – typically, all software, hardware and third party software supplied as part of the solution by Fairfax Imaging. Fairfax Imaging is a firm believer in providing a single point of contact for solving support issues so as to eliminate finger pointing.

Fairfax Imaging will respond to maintenance, technical support, change requests, and/or inquiries made by WV Tax.

WV Tax has three methods to reach Fairfax Imaging's Support Services Team.

- Phone: 877-627-8325
- E-Mail: Helpdesk@FairfaxImaging.com
- Web: RT/ FAST – Fairfax Account Support Tool via our web site www.fairfaximaging.com

Regardless of the manner in which Fairfax Imaging receives a request for support, all calls are logged within the Fairfax Account Support Tool (RT/FAST). In doing so, Fairfax Imaging as well as WV Tax is able to monitor and track all issues and provide a history of the actions taken. This historical information is available and used on a regular basis for account reviews by the Fairfax Account Representative with WV Tax on a regular basis to ensure the continued health

and operational review of the system.

Upon logging the request into the online RT/FAST system, WV Tax can assign Severity Levels to each problem request and upon resolution of the issue, will close out the call. Determination of the level of severity for the problem is based upon the definitions provided below.

System upgrades of the *Quick* Modules software are provided to our maintenance paying customers ***at no additional charge***. Our product undergoes periodic revisions, and our maintenance clients can obtain these upgrades as they are available.

Preventative maintenance procedures are performed on the ImageTrac 6400 scanning hardware on a scheduled, periodic basis in coordination with WV Tax's production and staff schedules. In doing so, our Preventative Maintenance procedures allow WV Tax to maximize the use of the systems and to address problems before they occur.

4.12.2 Describe any external system's access for remote diagnostics.

Vendor Response:

Supplying customers with effective software support can be enhanced by granting remote server access using secure methods like VPN. This type of access will allow the engineer to navigate through the WV Tax's system without having to directly involve WV Tax in trying to gather the necessary data for troubleshooting. Some of the advantages in using VPN are:

- Directly view logs, event viewer and system configuration information
- Monitor system operation
- Determine if root cause is due to process or human error.
- Implement updates
- Occasionally route necessary files to and from the server.
- Secure method of system access

Some customers do not allow remote access to production or test environments, and therefore it might be necessary to use a different method of system access. WebEx is another means of accessing the system, but it also allows WV Tax to monitor or work being done by the engineer. Fairfax Imaging will supply WebEx capability for these situations unless WV Tax insists on using their own screen sharing utility.

Another method to move files to support an existing customer is the Cloudberry tool. This tool will be available to all customers who would like to use a convenient method of transferring files to and from the Fairfax Imaging software engineer. Some of the features of this tool are:

- Copying Files
- Moving Files

- Rename Files
- Create A New Folder

4.12.3 Discuss your proposed maintenance coverage, including response times, hours of coverage, and services covered.

Vendor Response:

Fairfax Imaging's proposed maintenance coverage is an all-inclusive one. Our maintenance and support will extend to cover all components that are provided by Fairfax Imaging. This includes the ImageTrac scanners as well as the *Quick* Modules software and any third party software that is delivered as part of the *Quick* Modules software (example; recognition engines).

All calls/issues that are generated by WV Tax will be done within Fairfax Imaging support tracking tool, RT/FAST. The RT/FAST (Fairfax Account Support Tool) is an online program that allows WV Tax 24 x 7 access to log any issues, questions or other inquiry. While logging the issue, WV Tax will select the level of severity (1 to 4) related to the issue.

For all issues, Fairfax Imaging will respond to the customer within 30 minutes of logging the issue. For ImageTrac hardware and related software issues, Fairfax Imaging will log the call to ibml corporation and a service technician will be dispatch within four (4) hours to resolve the issue.

For *Quick* Modules software, or other issues Fairfax Imaging will route the support request to the assigned Support Engineer within Fairfax Imaging's own Support Services Group. The Fairfax Imaging Support Services Group personnel are all located within the U.S. at our headquarters in Tampa, Florida.

Hours of coverage will be Monday through Friday, 8AM to 5PM (WV Tax time), excluding WV Tax holidays.

Fairfax Imaging's maintenance and support program covers WV Tax for all ImageTrac scanning hardware/software and *Quick* Modules software issues. All parts and labor are included as part of the ImageTrac hardware/software support as well as monthly preventative maintenance on each of the ImageTrac scanners. This preventative maintenance is conducted by factory trained ImageTrac support personnel and will be oversighted by ibml Corporation.

All labor is included as part of the *Quick* Modules software support.

4.12.4 Provide a copy of your problem escalation matrix identifying escalation levels, actions and contact individuals and/or titles. Address design, implementation, hardware, and software maintenance issues.

Vendor Response:

Part of delivering excellent customer service, is offering the customer and engineer a path to escalate issues that are difficult to resolve. This escalation process ensures that all parties have the necessary support they need in order to reduce the effect on the customer's production environment.

WV Tax has three methods to reach Fairfax Imaging's Support Services Team.

- Phone: 877-627-8325
- E-Mail: Helpdesk@FairfaxImaging.com
- Web: RT/ FAST – Fairfax Account Support Tool via our web site www.fairfaximaging.com

The following chart provides Fairfax imaging's Severity Levels, resolution times, and escalation points.

Severity	Problem Type	Response
1	**Critical**; impacts production or conditions severely affect service, capacity/traffic: • System down • Electronic Deposit failure	Contact customer within 30min FAST status every 2 hours Resolve within 4 bus hours Escalate to the Director of Support Services after 2 business hours Onsite after 16 business hours.
2	**Major**; impacts daily operations; conditions that seriously affect system operation: • Very slow batch processing • Partial processing limited • Repeated errors requiring extra processing	Contact customer within 30min Provide status every 8 hours. Resolve within 16 bus hours Escalate to the Director of Support Services after 4 business hours. Onsite after 5 business days.
3	**Minor**; no immediate operational impact; conditions that do not significantly impair the function of the system: • Defined as a minor problem that exists with the system but the majority of the functions are still usable and some circumvention may be required to provide service. • Batch related issue. • Involves a minor portion of the overall process.	Contact customer within 30min Resolve within 5 bus days Escalate to the Director of Support Services after 2 business days. Onsite after 30 business days.

4	**Menial**; requires answer to questions, requests or change requests. No effect on production or mission critical subsystems. • Test or Dev environment modification • Documentation, software or other requests • Questions not related to production processing	Contact customer within 30min Resolve based on customer request. No escalation needed. Onsite 2 business weeks after scheduled period.

4.12.5 Are replacement parts included in yearly maintenance costs?

Vendor Response:

Yes, all replacement parts for the ImageTrac scanners are included in the annual support maintenance costs.

4.12.6 What are the maximum limits to increases to annual maintenance charges?

Vendor Response:

Fairfax Imaging has provided fixed costs to the annual maintenance support fee for a period of nine years following system acceptance. No increases in maintenance charges other than those identified within the Price Proposal are required or will be enacted by Fairfax Imaging for the duration of this timeframe.

4.12.7 What is the average lead-time required for delivery of software enhancements/modifications?

Vendor Response:

In addition to providing continued maintenance and support for all components of the proposed solution, the Fairfax Imaging Support Services Group will also provide any Change Request activity related to the system that occurs after final System Acceptance. These types of Change Request oftentimes are requests made by our clients for Fairfax to perform small modifications to the System. Lead times for these types of enhancement/modifications are usually three to five days.

It should be noted that Change Requests identified during the project and prior to WV Tax final system acceptance will be administered by the proposed Fairfax Imaging Project Team.

4.12.8 Discuss the network and connectivity standards for your proposed system.

Vendor Response:

Fairfax Imaging's *Quick* Modules solution uses an open, flexible, client-server architecture based on the Microsoft Windows Server Operating System and built on the Microsoft .NET platform. Servers running Microsoft Windows Server 2008/2012 are required. Microsoft SQL Server 2012/2014 is also required. The system requires a minimum of three servers for the production environment, consisting of an Application server, SQL server, and Web (IIS) server. This configuration is based on three-tier architecture.

Fairfax Imaging's proposed solution is based on three-tier architecture. The three-tier architecture offers many benefits, including security, availability, scalability, and flexibility:

- Security: Systems within three-tier architecture can be isolated to limit access and exposure.
- Availability: Each tier is independent from the other tiers; this provides the benefit of not having a single point of failure.
- Scalability: Each tier can be scaled as desired without affecting the other tiers.
- Flexibility: Each tier can be managed or scaled independently giving the system increased flexibility.

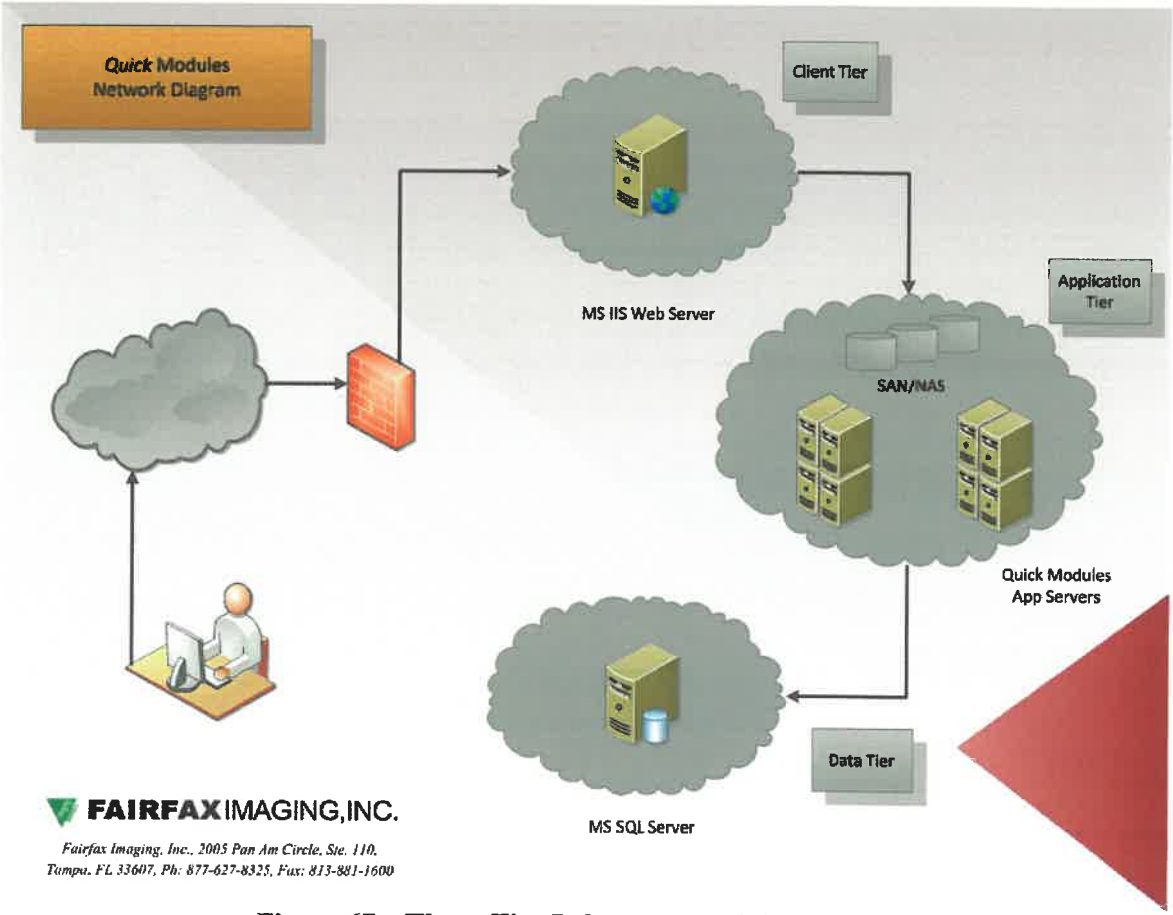


Figure 67 – Three-Tier Infrastructure Diagram

TCP/IP is used as the network protocol. A 1 Gb Network Interface Card is recommended for all servers. End-users access *Quick* Modules' applications through a secure web browser using SSL connections.

4.12.9 Discuss the environments delivered with your proposed system (development, testing, and production).

Vendor Response:

The system will be delivered with a Test, Development, and Production environment. Fairfax Imaging has included within this RFP response the recommend system architecture for servers, operating system, network, and related hardware and software to support these three separate environments.

4.12.10 What is your preferred server operating system for application/database servers? What are the common ones that have been installed?

Vendor Response:

Fairfax Imaging's *Quick* Modules solution uses an open, flexible, client-server architecture based on the Microsoft Windows Server Operating System. Servers running Microsoft Windows Server 2008/2012 are required. Microsoft SQL Server 2012/2014 is also required.

4.12.11 Discuss how WV TAX rules, validations, and edits are incorporated into the processing workflow.

Vendor Response:

Quick Modules Studio, referred to as "QMS," is a Web-based administrative tool used to manage and develop the solutions required to properly implement *Quick* Modules. It serves as a centralized development environment that allows the development, testing, and deployment of applications within *Quick* Modules.

QMS is the single location for all job setup - from forms and remittance processing to security for users, creating and selecting validations and edits, designing workflows to moving the environments from development, test and into production.

Validation rules are easily setup, many without the need of programming and become libraries to the application(s) that can be selected and maintained within the system. For each form and field within the form, the user is able to set the specific business rules associated with that dataset. Should a customized rule be required, it is easily added to the table and can be selected. All business rules are stored as libraries for future and common use across all applications.

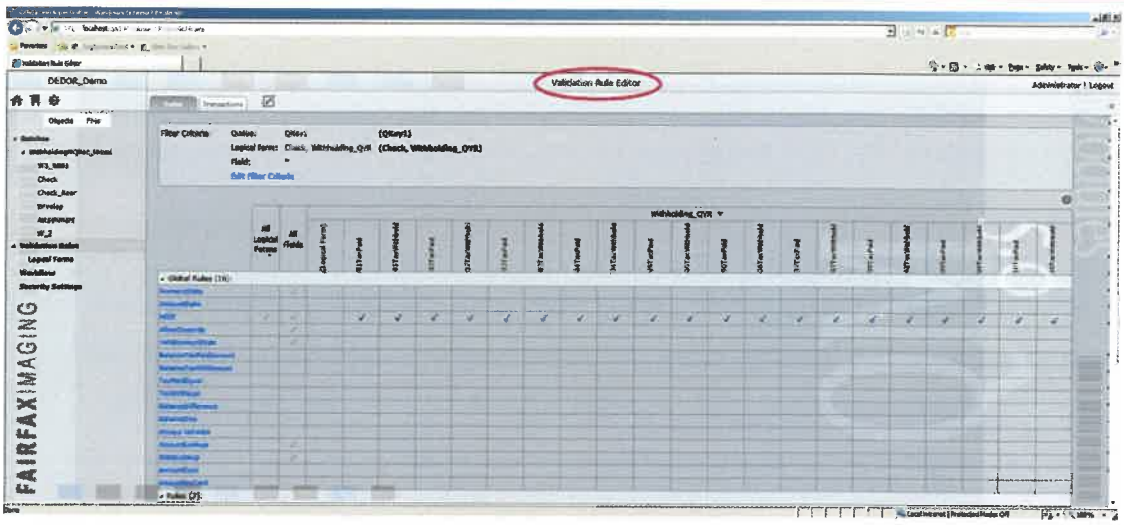


Figure 68 - Validation Rules Example

You can also develop and manage the *Quick* Modules Workflow in QMS. This includes creating queues for work and rules associated with each queue and workflow. The Workflow Designer provides access to everything needed to create a workflow. You can add processes easily and edit an existing process. The designer provides a graphical display of the logically flow of the system. At the highest level, the designer can link defined processing groups for the intended flow of the work through the system.

Queues are defined that allow the system to route and segment work based upon the needs of the client. For example, a user may have multiple queues that consist of a Balancing Queue consisting of work specific to the balancing and validation of check amounts for quick verification in order to speed deposit as well as any number of form queues specific by form type to ensure operators work similar form types for speed of entry. Other queues may be created for such specific tasks as W2/1099 entry/validation, correspondence review, etc. Using the intelligence of the *Quick* Modules QMS development environment, the user can set a virtual batching process that allows intermixed form scanning while segmenting the work to the users electronically. The system can re-associate all the transaction into batches prior to output.

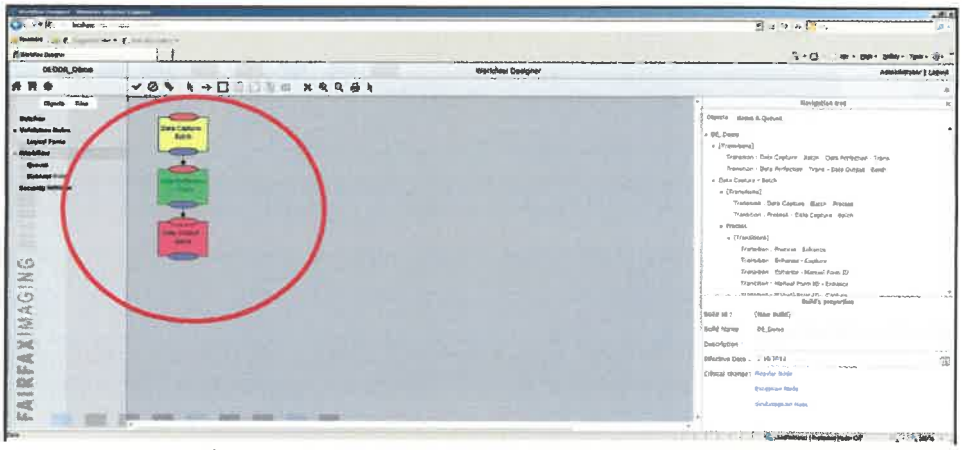


Figure 69 - QMS Graphical Workflow Design

Within each process, the developer can further define the exact business rules and flow of work through the system based upon as set of rules. Because it is a graphical interface, the workflow is defined by linking processes to create the overall workflow design. The screen below shows just one process in the above three processes defined.

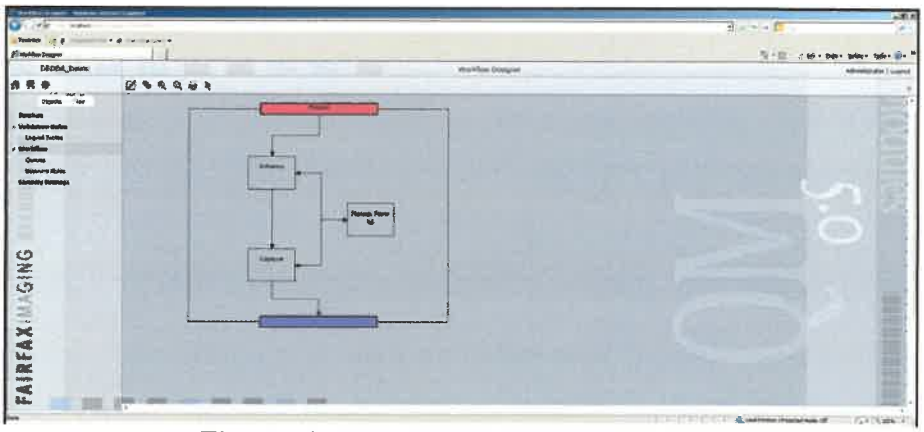


Figure 70 - Process Flow Design Example

The process in this example shows the scanned document going through *Quick* Enhance and then, through *Quick* Capture if the form is properly identified by the recognition engine. If the form is not automatically identified, it must go through the manual identification process first before going into *Quick* Capture. This is just one process in the workflow. Workflows can have several processes in them. All of this is managed and defined in QMS.

4.12.12 Discuss the ability of your proposed solution to outsource all or part of the data entry function. Include a high-level discussion of the technical interface required.

Vendor Response:

One of the benefits and feature of the *Quick* Modules 5.0 platform is that all user interfaces are thin-client architecture allowing access via a browser through a secure connection and login. This allows data entry to be performed on the system remotely, either through assigned

employees or through an outsourced vendor who is contracted by WV Tax to access and perform data entry functions on the system. In this situation, the technical interface is merely a secure connection and permissions/login granted by WV Tax to access the system.

Optionally, another approach which has been deployed by Fairfax Imaging clients who use *Quick* Modules 5.0 is through our business partner, Lionbridge who provide remote data entry services through use of in home data entry staff. In this approach, two additional modules are added to the *Quick* Modules 5.0 system – VSIImport and VSIExport. VSIImport is responsible for sending data to Lionbridge, while VSIExport is responsible for getting data back and putting the results into the *Quick* Modules system as a work object.

Outsource Manager, a user interface allows a customer user to specify data for what queues should be considered for outsourcing to Lionbridge. Outsource Managers displays a list of all the queues within *Quick* Key within *Quick* Modules and allows the customer user to check the queues that are to be evaluated for data entry tasks remotely by Lionbridge staff. Priorities can be set as well on which queues to work.

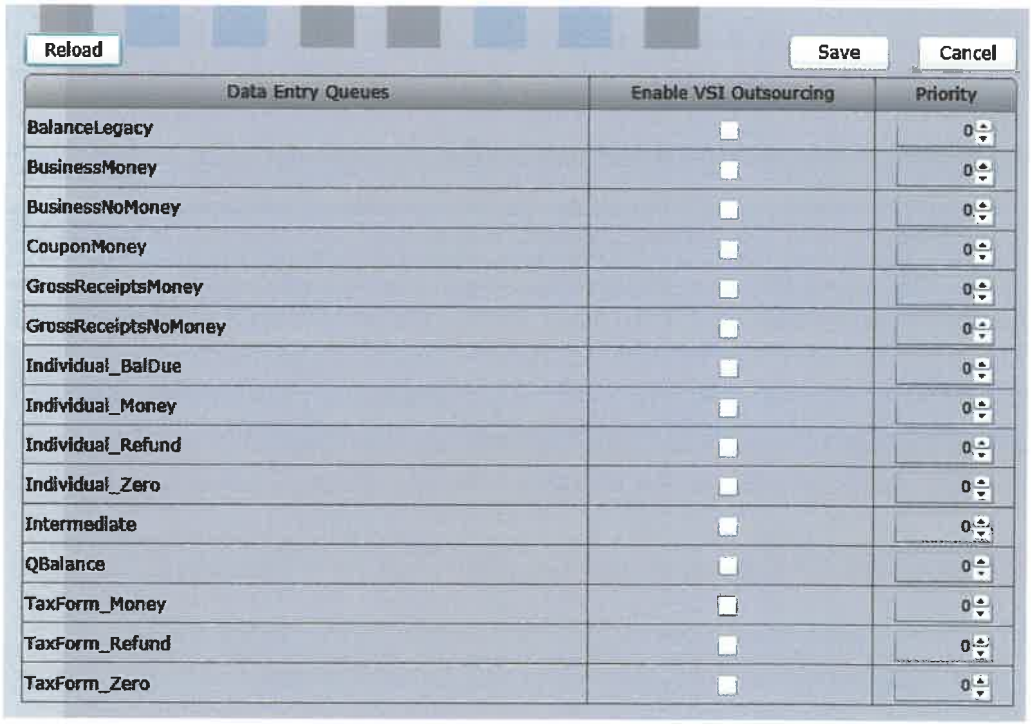


Figure 71 – Outsource Manager Screen Example

Some of the features of this approach include:

- The system will allow dynamically turning outsourcing to Lionbridge on and off
- The system will allow specifying the priority of the work for each queue.
- The User Interface security only allows authorized users to make changes to

outsourcing.

- The system will specify items to be keyed by Lionbridge based on confidence thresholds for the automated reading engine. The threshold will be determined based on parameters set in the *Quick* Modules rule file for each form/field (keying validation rules).
- The system will perform validation of the data returned by Lionbridge based on the provided business rules and any fields that fail business rules will be sent to keying in the appropriate *Quick* Key queues.
- The system will record the ID of the last operator touching the transaction (VSI or Lionbridge keyed transactions, FAIRFAX for transactions captured by *Quick* Modules that didn't require any keying, otherwise the name of the last *Quick* Key operator that worked on the transaction).
- The system will collect daily counts of transactions sent to Lionbridge and number of characters keyed by Lionbridge by day and stores them in a database table to allow generating reports.
- The system will detect when the data is not returned by Lionbridge within specified period of time and push the batch forward to the appropriate *Quick* Key queue for in-house data correction.

4.12.13 Discuss your proposed system's ability to show an operator what fields may be in error if a subtotal or total does not compute.

Vendor Response:

The proposed *Quick* Modules solution includes easily configurable math block edits set up to ensure accuracy of data captured from tax returns. The proposed solution will provide WV Tax with the ability to create math block rules throughout the workflow. Simple and complex math blocks can be assigned to any form field required and also to any balancing rule. If the math block rule fails, the field (subtotal or total for example) will be presented to the operator in the *Quick* Key application in order to confirm if the value was computed accurately.

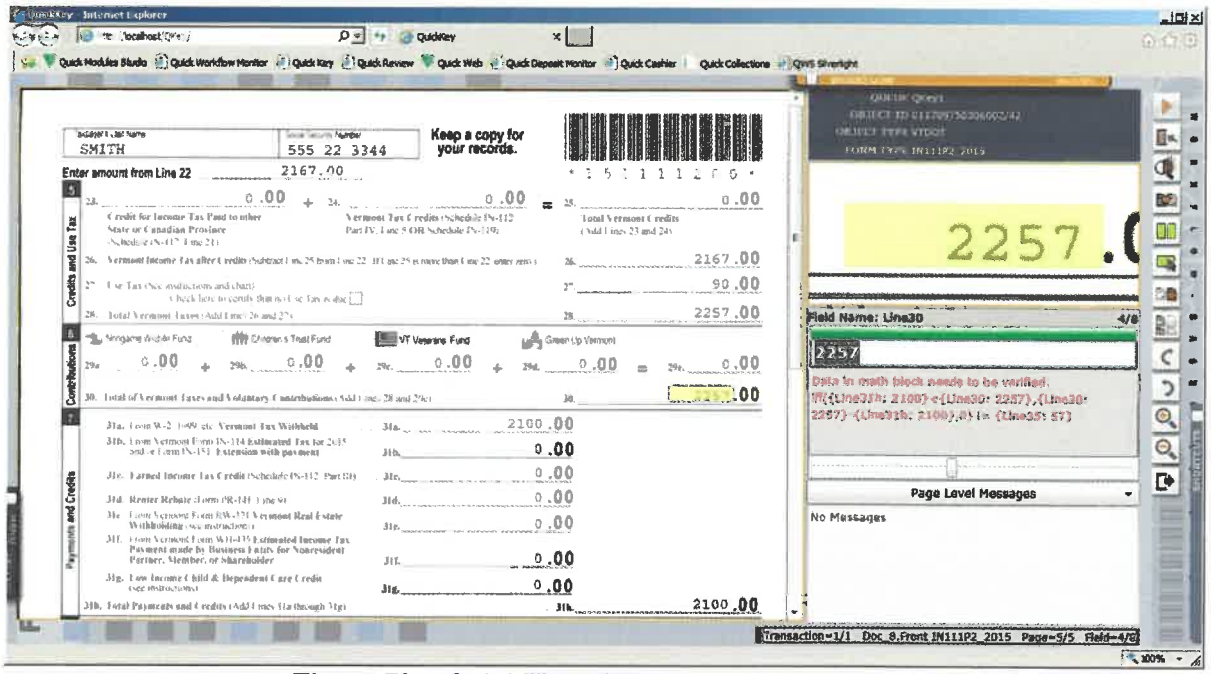


Figure 72 – *Quick* Key with Math Block Field

Math block rules and all other validation rules can be configured by WV Tax using the web-based administrative tool called *Quick* Modules Studio (QMS). Custom error messages can also be configured in order to provide feedback to the operator.

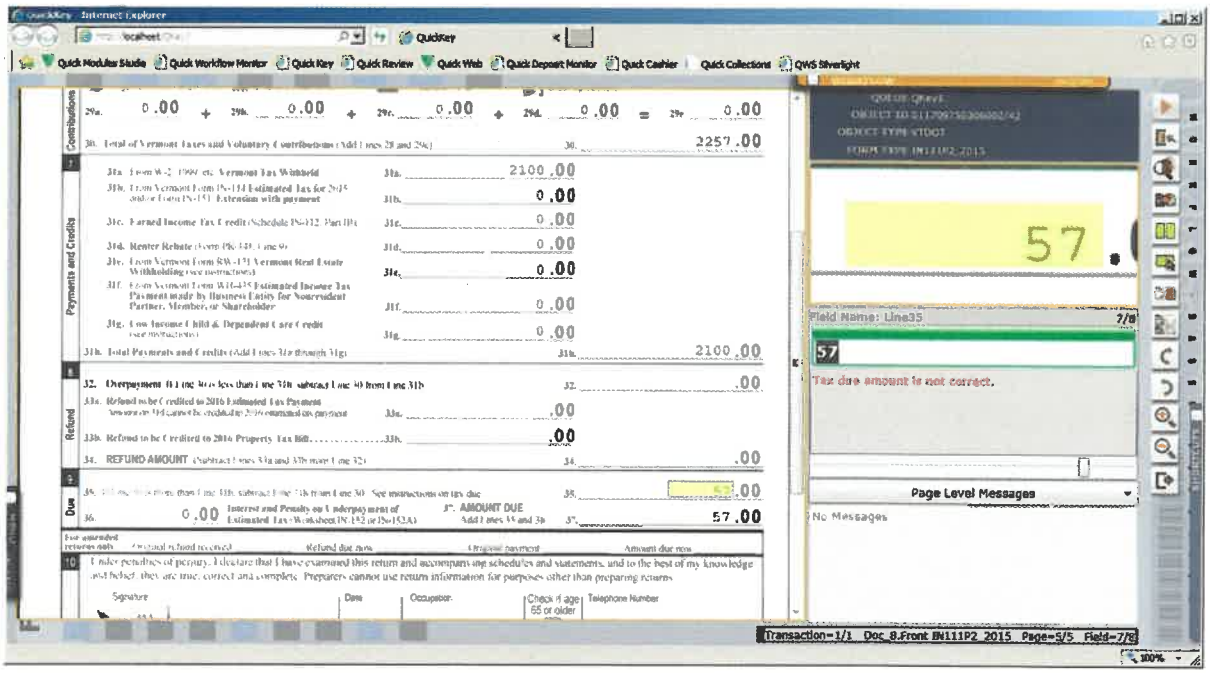


Figure 73 – *Quick* Key with Custom Error Message

Section 4, Subsection 4.13:

4.13 Goal/Objective 13: APPLICATION DATABASE

The Department desires SQL database. Please explain how this goal will be met.

4.13.1 Describe the database standards for your proposed system.

Vendor Response:

The proposed solution's database engine is Microsoft SQL Server. SQL Server 2012 or newer is recommended.

4.13.2 Describe the database used to support your application software.

Vendor Response:

The proposed solution's database engine is Microsoft SQL Server. All transactions and batches are represented in the workflow database as Work Objects.

4.13.3 Describe the security features of the database and the user's ability to modify/maintain the database.

Vendor Response:

While a transaction is moving within the *Quick* Modules workflow (i.e. being processed), its data is stored in a database structure that can only be accessed and changed by the *Quick* Modules applications. End-users do not have direct access to the databases. These applications log changes made to the data and to the images of the transaction. An audit trail is created and maintained which includes but is not limited to the following information:

- Date and time of transaction check in
- Date and time of transaction check out
- Operator ID
- Length of processing

The State's IT Administrators will have full access to the SQL Server and the databases in order to modify and maintain the database, with the proper security credentials.

4.13.4 Describe the access and level of control the user has to the database.

Vendor Response:

Users do not have direct access to the database. Access to the database is accomplished through the application and application security layers.

4.13.5 Identify any proprietary software your system requires to support data management including the database engine, data access method(s), data development tool(s) and data management (tools)?

Vendor Response:

Fairfax Imaging uses no proprietary software to support data management, including the database engine, data access method(s), data development tool(s), and data management tool(s). Fairfax Imaging is committed to the use of industry-standard open tools, and processing images along the industry-standard formats.

The use of files and their inter-dependencies and their relationships with databases is a key component of the way we develop solutions. Our system interfaces internally and externally with the various file systems and all ODBC databases on the market. We use off-the-shelf non-proprietary formats, and we publish all of our internal data structures, and file layouts. We use standard network mapped file systems, and all of our solutions always subscribe to the Open Systems Foundation principles.

4.13.6 How is data history and data purge handled?

Vendor Response:

Information related to document type, date scanned, etc. is stored in the database. *Quick* Purge is a module included in the proposed solution and is responsible for purging images and/or database information based upon date, and other types of parameters based upon the requirements of WV Tax. This is configured as an automated process that occurs periodically (i.e., once a week).

4.13.7 What are the database and file management maintenance requirements?

Vendor Response:

Requirements for database and file management maintenance include regularly scheduled procedures for database tuning. *Quick* Purge is used to delete images and/or database information based upon form type, date, and other types of parameters based upon the requirements of WV Tax.

The following describes database maintenance recommendations from Fairfax Imaging for the SQL database.

The following represent the list of all Fairfax databases

- QM30Base
- QM50Base
- QM50Check21DB
- QM50OutputDB

- QM50QuickWeb3
- QM50Stats
- QM50WFlow

- Run index maintenance daily (during off hours). For all database except QM50WFlow database
- Do nothing for indexes whose fragmentation is below 5% or whose page count is less than 1000 pages
- Reorganize indexes whose fragmentation is above 5% but below 30%
- Rebuild indexes whose fragmentation is above 30%

For QM50WFlow database:

- Do nothing for indexes whose fragmentation is below 5% or whose page count is less than 100 pages
- Reorganize indexes whose fragmentation is above 5% but below 10%
- Rebuild indexes whose fragmentation is above 10%

Transaction Log Backups

- Run transaction log backup every hour for all databases except QM50Base and QM50WFlow databases. For QM50Base and QM50WFlow databases, perform transaction log backup every 30 minutes. **Note:** Log backup times will increase in size and duration during the maintenance periods since the index rebuilds are fully logged.

Statistics Update

- For the following tables within QM50WFlow database statistics should be updated every 15 minutes
  - DS.CustomField
  - DS.FieldData
  - DS.Page (with statistics sample of 100%)

Full Database Backup

- The full database backup is performed weekly and incremental backup is performed daily.

Section 4, Subsection 4.14:

4.14 Goal/Objective 14: INTERFACE AND TRANSMISSIONS

The Department desires a system that will interface with our host system WVOASIS and will allow for implementation of Check21. Please explain how your proposed solution will accomplish this goal.

4.14.1 How will the proposed solution integrate with WV TAX' host system?

Vendor Response:

Integration with WV Tax's host system (GenTax®) can be real-time in order to perform validations of the information captured during the processing of payments, to provide look-up capabilities during exception processing as well as final output file generation to update taxpayer file information. Real-time integration can be done via user exits direct to the host system or via web services.

Real-time integration via user exits is performed through DLL's written specific for the performing requests to the host system for purpose of validation of data. Web services can be used as well for integration to WV Tax's host system. The application will interface with any industry standard based web-service. Message level or transport level security can be utilized. When the information is captured, the application will pass the data to the web-service and the web-service in turn will provide the data to the host.

Final output file generation is generally done via *Quick* Output and can be virtually any file structure that WV Tax desires. The *Quick* Output module supports the formatting of editing batches to conform to the specifications for transfer to WV Tax's host system and the automated upload of these files. Batches that are processed are validated prior to upload. *Quick* Output runs as a service and the resulting output may be in formatted text files, XML or ODBC to a database.

Our proposed solution has interfaced at several sites with the GenTax® software and we have a very good working relationship with FAST.

4.14.2 What types of file formats are created from your application?
Whattype of format is needed for import into your application?

Vendor Response:

After processing has been completed, there are a variety of options available to WV Tax for output of the captured information (data and images). File creation and output consisting of various formats will be performed and multiple transmissions can be generated daily to maintain the system output.

Through *Quick* Modules, *Quick* Output software, data files will be created that can be transmitted

to the designated endpoint(s) that WV Tax requires. This can be one or many file-types from standard to highly custom. There is virtually no limit to the number and type of files that can be created as long as the file format can be specified.

4.14.3 How well can the application interface with third-party vendors? Do youhave relationships with any third-party vendors? Any "off the shelf API's that integrate with common third party application?

Vendor Response:

Fairfax Imaging has developed Application Programming Interfaces (API's) that are used to interface with third party vendors. These API's have been developed for our products that the user community, system integrators, system consultants, or our own software specialists can use to integrate our product within other products, or to mold it to suit any business requirements.

4.14.4 Can more than one transmission method be supported within the system? List the methods that can co-exist.

Vendor Response:

Yes, multiple transmission methods exist. *Quick* Output will generate multiple files and formats for the various WV Tax systems including GenTax®.

4.14.5 What management I monitoring tools does the transmission facility provide? Can transmissions be scheduled? If they can be scheduled is there a maximum amount of transmission that the system will support? At what level are transmissions scheduled - account, lockbox?

Vendor Response:

Quick Workflow Monitor supplies a view into the transmission activity in order to ensure proper operation. Output can be generated either at predetermined times based upon the workflow. There is no maximum amount of transmissions and therefore WV Tax can perform as many as needed to accomplish the tasks at hand.

Quick Check 21 transmissions are monitored using *Quick* Deposit Monitor. Individual Check 21 deposit file size is limited by rules within Check 21; however multiple deposits can be performed throughout the day.

Section 4, Subsection 4.15:

4.15 Goal/Objective 15: WORKFLOW

The Department desires a solution that will provide workflow that could differ from current. Please explain how your solution will meet this goal.

4.15.1 Describe the workflow process of your proposed solution from mail receipt through posting to host system and bank deposit, data & image extract to back end system.

Vendor Response:

Workflow is easily changed as needs change using *Quick* Modules Studio (QMS) with an easy to use point and click interface. Changes to the system using QMS can be made by WV Tax without vendor assistance.

4.15.2 Provide a workflow diagram identifying hardware, software, and interfaces to external systems.

Vendor Response:

A detailed workflow diagram is included in our response to Section 4, Subsection 4.5, response item 4.5.1 on page 66 of this proposal response.

4.15.3 What do you propose to be the most economical method for processing prior year tax forms?

Vendor Response:

Prior year returns can be processed on the proposed system. Scanning jobs on the ImageTrac scanners can be setup along with appropriate queues and business rules/validations on *Quick* Modules 5.0 to process prior year returns. Should the listing of forms provided by WV Tax for inclusion in Phases 1, 2 and 3 of the RFP project requirements not address all prior year returns, then the most economical method of including these into the system would be for WV Tax staff to add these to the system following training by Fairfax Imaging.

In many of our client locations, the decision to perform full data capture/processing of prior year returns centers on the cost benefit of performing full capture, and maintaining prior year business rules against the expected volume to be received. Almost all of Fairfax Imaging's tax operation clients process prior year returns on their *Quick* Modules system. They will oftentimes perform full data capture for returns that are current filing year, minus 3 years. To capture tax forms that are older than this timeframe, a general Key From Image template is created which captures the relevant tax data needed to post the return to the GenTax system. This can be taxpayer ID, tax type, general tax amount(s) earned and/or owed. Once posted to the GenTax system, an auditor within the GenTax system can review the transaction and perform any additional entry and

resolution of the tax information.

4.15.4 Describe the process and procedures for handling exceptions. (ie. Business Registration Applications).

Vendor Response:

An exception condition can be identified at any step in the *Quick* Modules workflow by the use of WV Tax defined business rules. Exceptions can be identified automatically and queued for *Quick* Review. A *Quick* Key operator can also manually assign an exception condition and place the transaction into the *Quick* Review queue. When exceptions are assigned to *Quick* Review, they are removed from the normal workflow.

In *Quick* Review the transaction can be reviewed by a more experienced operator. The operator is able to research the transaction and review all the workflow steps in detail that have already been performed. The reviewer has the option to split the transaction, rescan documents, and reinsert the transaction back into the workflow at the appropriate workflow step. The reviewer also has the option to remove the transaction from the system. All review actions are recorded in the system audit.

4.15.5 Discuss your solutions capability to process intermixed tax forms rather than batching work bytype.

Vendor Response:

Quick Modules does not require tax forms to be manually sorted by tax type prior to scanning. Tax forms are scanned in the order they are received by the post office. Once scanned, the tax type is identified electronically and then added to a virtual batch of like transactions.

4.15.6 How does your solution identify the transaction boundaries between returns? Between taxes?

Vendor Response:

The transaction boundary is determined by the order of scanning and is initially provided by the application in the ImageTrac 6400 scanner. After transfer to *Quick* Modules, transaction integrity is verified based on WV Tax business rules. If required, a transaction is sent to *Quick* Review for batch integrity review and repair.

Transactions are ordered with the tax form first, followed by any additional forms or correspondence, and then the remittance. Any combination of tax forms, Gentax vouchers, w2's, correspondence, and remittances form a transaction. When a tax form follows a remittance, then a new transaction is triggered. For example:

1. Transaction 1
    a. Tax form identified by barcode, preprinted document ID, or unique form

characteristic.
   b. Correspondence
   c. W-2s
   d. Check
2. Transaction 2.
   Transaction 2 is determined because a tax form followed a check.
   a. Tax form identified by barcode, preprinted document ID, or unique form characteristic.
   b. W-2s
   c. Check
   d. Check
3. Transaction 3
   Transaction 3 is determined because a Gentax Voucher followed a check.
   a. A Gentax Voucher identified by barcode
   b. Check
4. Transaction 4.
   Transaction 4 is determined because a tax form followed a check.
   a. Tax form identified by barcode, preprinted document ID, or unique form characteristic.
   b. Tax form identified by barcode, preprinted document ID, or unique form characteristic.
   c. W-2s
   d. Check
5. Transaction 5
   Transaction 5 is determined a Gentax voucher followed a check.
   a. A Gentax voucher identified by barcode
   b. Check
   c. Money Order

While not required, a physical transaction separator can be used such as an envelope or a separator sheet.

4.15.7 How does your solution maintain transaction integrity?

Vendor Response:

Transactions boundaries are first established in the scanner and then automatically verified by *Quick* modules to ensure transaction integrity. Transactions are assigned a DLN and written into the *Quick* Modules Microsoft® SQL database. All transaction data is managed in the database ensuring transaction integrity as the transaction is processed through the system.

4.15.8 Describe your processing procedures for processing each payment type you will encounter. Including:

Vendor Response:

Quick Modules can process all payment types currently processed by WV Tax. Each transaction stands alone and is processed according to the individual business rules established by WV Tax

for a given transaction type.

4.15.8.1 Single page tax form

Vendor Response:

When processing a single page tax form, all relevant fields on the tax form are processed automatically following WV Tax business rules. Since there is no remittance, the tax form is not balanced to a check. However, the *Quick* Modules system will perform all required math block verifications of the fields on the form.

4.15.8.2 Multiple page tax form

Vendor Response:

When processing a multiple page tax form, all relevant fields on each page of the tax form or accompanying Schedules are processed automatically following WV Tax business rules. Tax form edits can span pages to assist in making sure all tax data is captured correctly.

4.15.8.3 Single page tax form with check or checks

Vendor Response:

When processing a single tax form with a check, all relevant fields on the tax form are processed automatically following WV Tax business rules. The balancing logic will balance the total due on the tax form to the total of the check if it is a single check or to the total of all checks if more than one check is received.

4.15.8.4 Multiple page tax form with check or checks

Vendor Response:

When processing multiple page tax forms with one or more checks, all relevant fields on each page of the tax form are processed automatically following WV Tax business rules If the total due line on the tax form matches the remittance amount on a single check or matches the sum of all check amounts if more than one check is present in the transaction, the transaction is in balance.

4.15.9 Describe any automated reject repair functionality within the system. For example, OCR, MICR, date, etc.

Vendor Response:

Throughout the *Quick* Modules solution, multiple recognition technologies are deployed in conjunction with specific business rules to ensure accurate capture of the information prior to posting and deposit. These business rules can vary from simple validation rules like range and

date checks to complex business rules involving table lookups and executing algorithms using information from several data items on multiple forms. A business rule can be deployed for each field recognized to help improve recognition accuracy and reduce required keystrokes. For example, if a field is defined as numeric and a 'B' is recognized, then it is automatically changed into an '8'.

An edit can be defined for the attributes of a field like a date, a table lookup of valid options, or a database lookup of taxpayer information, or a mathematical algorithm can be performed at recognition time to automatically correct an error and avoid operator intervention.

4.15.10 Discuss your system's ability to share data entry workload between multiple operators at a transaction, batch, application/publication, and functional level.

Vendor Response:

Work can be processed within *Quick* Modules on a transaction basis. While we track batches within the database, each transaction can be worked individually. This allows the workflow to assign the next available transaction to the next available operator. For example, an operator will login to *Quick* Key, select a job to work, and the workflow engine will present the next available transaction to the operator automatically. An operator also has the option of selecting a specific batch to work instead of allowing the system to present the next available transaction.

Quick Key queues can be designed to work on the entire transaction or on a subset of a transaction. For example a less experienced operator is allowed to key amount fields while a more senior operator has access to taxpayer information.

The *Quick* Workflow Monitor will give supervisors graphical look at work moving through the system. The display automatically updates every few seconds. Supervisors will be able view system workload, system throughput, and operator performance instantly from scanning to output.

Access to work is restricted by user group and privilege. This will allow WV Tax to limit jobs to a certain operator or group of operators.

4.15.11 How does your proposed system solution distribute (allocate) work to operators?

Vendor Response:

Quick Workflow distributes work in a dual push/pull mode. It will bring to each queue the next available work item (push), displays them on the screen along with their respective priority levels, or the system allows operator to choose the work unit (pull). For example, an operator has the option to log into a *Quick* Key queue, and the next available transaction to be worked will

automatically load; or, the operator can select the next work unit manually.

4.15.12 Does your proposed solution provide for individual data entry operator selection of specific batches of work? If yes, describe the security and workflow limitations of the system.

Vendor Response:

The data entry operator has the option to select the batch of work to be processed. From a security perspective, user access and permissions are controlled in *Quick* Modules Studio (QMS) using groups and user accounts. Users must be members of security groups to be granted any kind of access. WV Tax will have full control of the group membership, which can be objects within the existing Microsoft Active Directory. User access can be restricted by job or task. For example, an operator can have access to Job A in the *Quick* Key queue but not Job B. An operator can have access to *Quick* Key but not *Quick* Review.

Role-based permissions within QMS will allow WV Tax the ability to grant specific users, such as supervisors or IT security administrators, the ability to grant privileges only and not make any other changes to the system.

4.15.13 Does your proposed solution provide for work time out at the key entry station?

Vendor Response:

Quick Modules provides a work timeout for key station. WV Tax can set the desired timeout value.

4.15.14 Does your proposed solution include a training mode? If yes, discuss which processing steps in the workflow the training mode is provided.

Vendor Response:

Fairfax Imaging proposes a development environment, a testing environment and a production environment. Most clients will use the testing environment for training. This will isolate training from the production and development. All processing steps are available in all environments.

4.15.15 Does your proposed solution provide user defined reason codes for rejected transactions?

Vendor Response:

When a transaction is rejected, a reason must be entered. A reason code can be entered as well as a free form comment to explain a situation for which there is no code. All reason codes and comments are stored in the audit database.

4.15.16 Describe the format by which images are displayed for each of the image data entry functions.

Vendor Response:

Multiple formats of each image are available for different steps within *Quick* Workflow. When an image is presented to data capture and recognition functions, the binary Dynamic TiFF image provided by the ImageTrac is used. When the image is presented to an operator for keying or review, a color JPG version of the same image is displayed. This provides the best view of the original document for both recognition and operators. The operator has the ability to toggle between versions of the image with a single keystroke. Check-21 functions require the TIFF binary image for the image cash letter.

Section 4, Subsection 4.16:

4.16 Goal/Objective 16: REMOTE CAPABILITIES

The Department desires remote capabilities in regard to balancing, keying, deposit, and System Administrator. Please explain how your solution will meet this goal.

4.16.1 Does your proposed solution provide or allow for any remote activities such as capture, data entry, retrieval, and monitoring? If so, describe the capabilities.

Vendor Response:

All end-user applications in the proposed solution are web-based and can be easily accessed remotely using a browser. Remote capture is also supported using any supported scanner, such as ibml or smaller Kodak scanners.

End-users only need access to the *Quick* Modules web server from a remote location, and to point to the correct URL for the specific web-based application, such as data entry, retrieval, or monitoring.

Section 4, Subsection 4.17:

4.17 Goal/Objective 17: MANAGEMENT TOOLS

The Department desires all management tools necessary to administer the system daily and make necessary changes, stats, reports, etc. Please explain how your solution will meet this goal.

4.17.1 Describe the management tools and reports that are provided with your proposed solution. Address productivity, accuracy/quality, recognition, and activity logs for both hardware and operators.

Vendor Response:

The solution proposed offers a robust set of tools that allow WV Tax to monitor the daily production and archival databases of the designed solution. Fairfax Imaging recognizes WV Tax's desire to monitor the production systems continuously in order to achieve maximum productivity and address any bottlenecks in the workflow.

The *Quick* Workflow Monitor module provides real-time administrative and management oversight into the current performance of the system of the *Quick* Modules software. If desired, a transaction within a queue as well as the details associated with the transaction can also be viewed.

The ability to provide data from the production and archival databases as well as data on the people who interact with them is a key management tool. Towards that end, *Quick* Modules comes complete with *Quick* Reports, a comprehensive reporting tool with over twenty standard

reports. In addition, *Quick* Reports can be easily configured to accommodate custom report types generated by Fairfax Imaging or by the WV Tax. *Quick* Reports is designed around the Microsoft SQL Server Reporting Services. *Quick* Reports is designed to allow an operator to quickly and effectively generate reports based on a host of criteria.

Generate IFP reports in *Quick* Modules' *Quick* Reports.

As identified by WV Tax, the desire is for the system to access and use legacy statistic data within the IBM/IFP system for reporting. In order to generate reports from the current IFP/IBM system using the new reporting module, *Quick* Reports, the data in the DB2 database system will be imported into the Microsoft SQL Server database system.

Fairfax Imaging will perform the following steps:

1. Migrate DB2 data to Microsoft SQL Server using the migration tool from Microsoft
    a. WV Tax will provide Fairfax Imaging with access to the DB2 database and provide the database schema
    b. Only records for the past 5 years will be migrated to SQL Server. WV Tax will ensure adequate storage is available in SQL Server
2. Develop custom reports per WV Tax request and layout specifications in SSRS using the newly migrated data in the SQL Server
3. Make newly developed reports available in the *Quick* Reports end-user application

4.17.2 Provide a sample of your standard system reports.

Vendor Response:

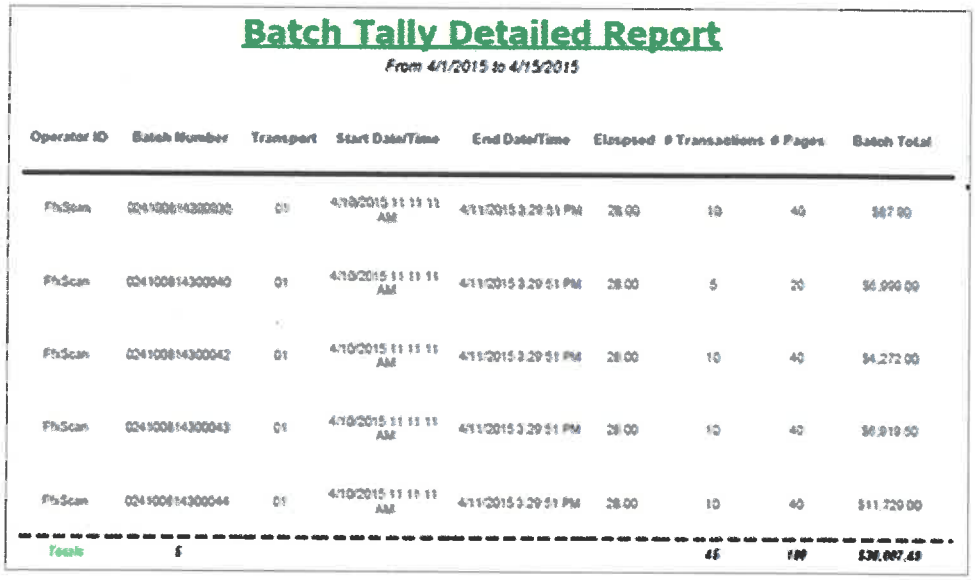
Quick Modules comes complete with *Quick* Reports, a comprehensive reporting tool with over twenty standard reports. In addition, *Quick* Reports can be easily configured to accommodate custom report types generated by Fairfax Imaging or by WV Tax. *Quick* Reports is designed around the Microsoft SQL Server Reporting Services.

Standard reports available with the system include:

- Deposit details, Daily deposit reconciliation, and other supporting reports for the Check 21 processes.
- Recognition Statistical Reports both for Field and Character
- Form Identification Reports on both accuracy and method
- Performance Reports on recognition engines, operators, and so forth
- Scanning Transports statistical reporting

Samples of the included standard reports are below:

- **Batch Tally Detailed Report**

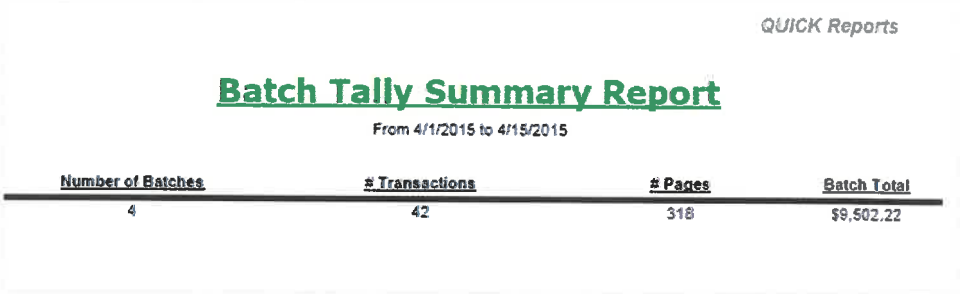


Batch Tally Detailed Report

From 4/1/2015 to 4/15/2015

Operator ID	Batch Number	Transport	Start Date/Time	End Date/Time	Elapsed	# Transactions	# Pages	Batch Total
FhScan	02410081430003[illegible]	01	4/10/2015 11:11:11 AM	4/11/2015 3:29:51 PM	28.00	10	40	$67.00
FhScan	02410081430004[illegible]	01	4/10/2015 11:11:11 AM	4/11/2015 3:29:51 PM	28.00	5	20	$6,999.00
FhScan	02410081430004[illegible]	01	4/10/2015 11:11:11 AM	4/11/2015 3:29:51 PM	28.00	10	40	$4,272.00
FhScan	02410081430004[illegible]	01	4/10/2015 11:11:11 AM	4/11/2015 3:29:51 PM	28.00	10	40	$8,919.50
FhScan	02410081430004[illegible]	01	4/10/2015 11:11:11 AM	4/11/2015 3:29:51 PM	28.00	10	40	$11,729.00
Totals	5					45	180	$30,007.49

- **Batch Tally Summary Report**



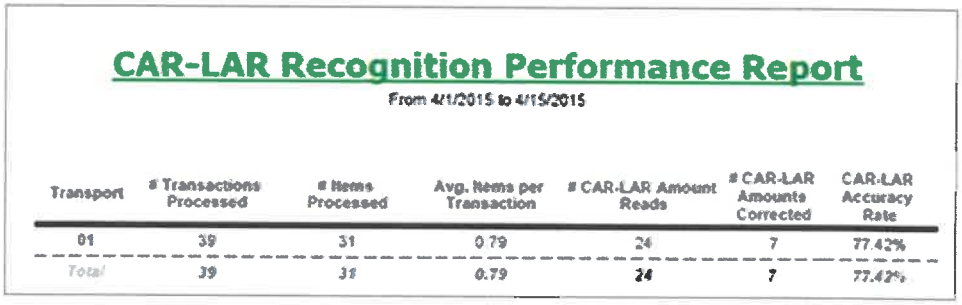
QUICK Reports

Batch Tally Summary Report

From 4/1/2015 to 4/15/2015

Number of Batches	# Transactions	# Pages	Batch Total
4	42	318	$9,502.22

- **CAR-LAR Recognition Performance Report**



CAR-LAR Recognition Performance Report

From 4/1/2015 to 4/15/2015

Transport	# Transactions Processed	# Items Processed	Avg. Items per Transaction	# CAR-LAR Amount Reads	# CAR-LAR Amounts Corrected	CAR-LAR Accuracy Rate
01	39	31	0.79	24	7	77.42%
Total	39	31	0.79	24	7	77.42%

- **Character Recognition Accuracy Summary Report**

Character Recognition Accuracy Summary Report

4/21/2015

Form Type		# Images Processed	# Characters Processed	# Characters Successfully Read	Character Accuracy Rate
TIF 103	Current	76	3,306	3,073	92.95%
	YTD	156	6,297	5,789	91.93%

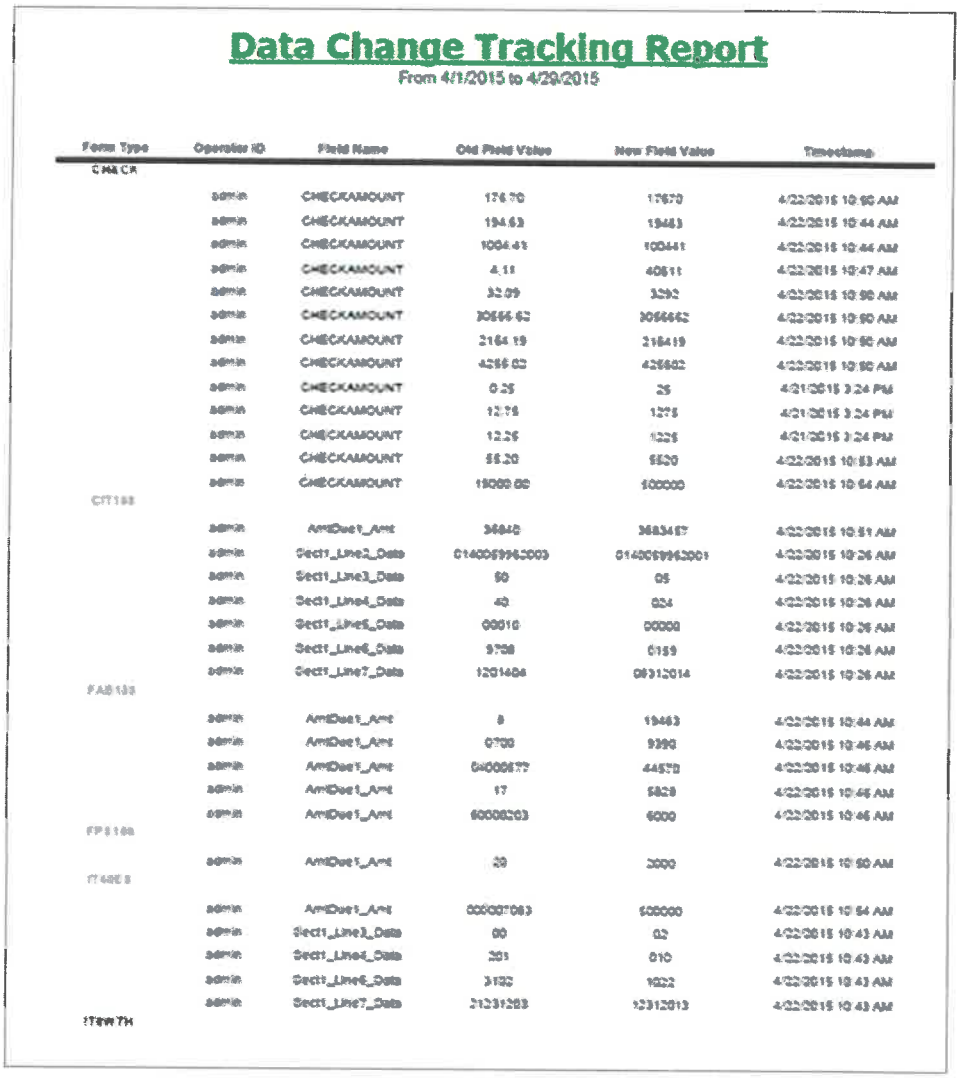
- **Character Recognition Accuracy Detail Report**

Character Recognition Accuracy Detail Report

4/21/2015

Form Type		# Images Processed	# Characters Processed	# Characters Successfully Read	Character Accuracy Rate
CHECK	Current	38	1,761	1,688	95.85%
	YTD	78	3,552	3,437	96.76%
CIT103	Current	10	403	355	88.09%
	YTD	10	403	355	88.09%
FAB103	Current	9	374	333	89.04%
	YTD	9	374	333	89.04%
FPS103	Current	10	388	344	88.66%
	YTD	10	388	344	88.66%
IT40ES	Current	0	0	0	0.00%
	YTD	6	266	253	95.11%
IT6WTH	Current	0	0	0	0.00%
	YTD	9	44	26	59.09%
MVR103	Current	0	0	0	0.00%
	YTD	10	327	162	49.54%
PFCRST	Current	0	0	0	0.00%
	YTD	5	140	105	75.00%
ST103	Current	9	380	353	92.89%
	YTD	9	380	353	92.89%
TIF103	Current	0	0	0	0.00%
	YTD	10	423	421	99.53%
Total	Current	76	3,306	3,073	92.95%
	YTD	156	6,297	5,789	91.93%
	YTD	9	54	42	77.78%
Machine Print Alpha					
	Current	9	21	20	95.24%
	YTD	9	21	20	95.24%

- **Data Change Tracking Report**



Data Change Tracking Report

From 4/1/2015 to 4/29/2015

Form Type	Operator ID	Field Name	Old Field Value	New Field Value	Timestamp
CHKCR					
	admin	CHECKAMOUNT	176.70	17670	4/22/2015 10:50 AM
	admin	CHECKAMOUNT	194.63	19463	4/22/2015 10:44 AM
	admin	CHECKAMOUNT	1004.41	100441	4/22/2015 10:44 AM
	admin	CHECKAMOUNT	4.11	40611	4/22/2015 10:47 AM
	admin	CHECKAMOUNT	32.09	3292	4/22/2015 10:50 AM
	admin	CHECKAMOUNT	30566.62	3056662	4/22/2015 10:50 AM
	admin	CHECKAMOUNT	2164.19	216419	4/22/2015 10:50 AM
	admin	CHECKAMOUNT	4256.02	425602	4/22/2015 10:50 AM
	admin	CHECKAMOUNT	0.25	25	4/21/2015 3:24 PM
	admin	CHECKAMOUNT	12.75	1275	4/21/2015 3:24 PM
	admin	CHECKAMOUNT	12.25	1225	4/21/2015 3:24 PM
	admin	CHECKAMOUNT	56.20	5620	4/22/2015 10:53 AM
	admin	CHECKAMOUNT	10000.00	1000000	4/22/2015 10:54 AM
CITIES					
	admin	AmtDue1_Amt	36840	3683457	4/22/2015 10:51 AM
	admin	Sect1_Line2_Data	0140059962003	0140059962001	4/22/2015 10:26 AM
	admin	Sect1_Line3_Data	50	05	4/22/2015 10:26 AM
	admin	Sect1_Line4_Data	40	024	4/22/2015 10:26 AM
	admin	Sect1_Line5_Data	00010	00000	4/22/2015 10:26 AM
	admin	Sect1_Line6_Data	9708	0159	4/22/2015 10:26 AM
	admin	Sect1_Line7_Data	1201404	08312014	4/22/2015 10:26 AM
FAB133					
	admin	AmtDue1_Amt	8	19463	4/22/2015 10:44 AM
	admin	AmtDue1_Amt	0700	9390	4/22/2015 10:46 AM
	admin	AmtDue1_Amt	04000677	44570	4/22/2015 10:46 AM
	admin	AmtDue1_Amt	17	5829	4/22/2015 10:46 AM
	admin	AmtDue1_Amt	60000203	6000	4/22/2015 10:46 AM
FP3188					
	admin	AmtDue1_Amt	20	2000	4/22/2015 10:50 AM
IT40E3					
	admin	AmtDue1_Amt	000007083	500000	4/22/2015 10:54 AM
	admin	Sect1_Line3_Data	00	02	4/22/2015 10:43 AM
	admin	Sect1_Line4_Data	201	010	4/22/2015 10:43 AM
	admin	Sect1_Line6_Data	3132	1022	4/22/2015 10:43 AM
	admin	Sect1_Line7_Data	21231283	12312013	4/22/2015 10:43 AM
ITRW7H					

- **Data Entry Operator Performance Report**

QUICK Reports

Data Entry Operator Performance Report

From 4/1/2015 to 4/22/2015

Operator ID	Queue Name	# of Keystrokes	# of Pages Processed	Work Hours	Keystrokes Per Hour	Pages Per Hour
BCarly						
	Qkey1	11	3	0.18	60.47	16.65
CJohnson						
	Balance	20	1	0.08	240.00	12.00
CJohnson						
	Balance	30	2	0.17	180.00	12.00
JLafavor						
	Qkey2	6	1	0.06	102.86	17.14
Total		67	7	0.47	143.57	15.00

- **Field Recognition Accuracy Detail Report**

QUICK Reports

Field Recognition Accuracy Detail Report

4/21/2015

Form Type		# Images Processed	# Fields Processed	# Fields Successfully Read	Field Accuracy Rate
CHECK	Current	38	266	221	83.08%
	YTD	78	546	461	84.43%
CIT103	Current	10	90	80	88.89%
	YTD	10	90	80	88.89%
FAB103	Current	9	81	72	88.89%
	YTD	9	81	72	88.89%
FPS103	Current	10	90	80	88.89%
	YTD	10	90	80	88.89%
IT40ES	Current	0	0	0	0.00%
	YTD	6	54	47	87.04%
IT6WTH	Current	0	0	0	0.00%
	YTD	9	9	1	11.11%
MVR103	Current	0	0	0	0.00%
	YTD	10	90	26	28.89%
PFCRST	Current	0	0	0	0.00%
	YTD	5	35	28	80.00%
ST103	Current	9	81	72	88.89%
	YTD	9	81	72	88.89%
TIF103	Current	0	0	0	0.00%
	YTD	10	90	89	98.89%
Total	*Current*	*76*	*608*	*525*	*86.35%*
	YTD	*156*	*1,166*	*956*	*81.99%*

- **Field Recognition Accuracy Summary Report**

Field Recognition Accuracy Summary Report

4/21/2015

Totals	Num of Images Processed	Number Of Fields Processed	Number of Fields Successfully Read	Field Accuracy Rate
Current	76	608	525	86.35%
YTD	156	1,166	956	81.99%

- **Form Identification Accuracy Summary Report by Batch**

Form Identification Accuracy Summary Report By Batch

From 4/1/2015 to 4/22/2015

Batch Type	Number of Images Processed	Number of Images Successfully Identified	Number of Images Failed Identification	Image Identification Rate
Money	32	32	0	100.00%
NoMoney	27	27	0	100.00%
Remit	14	14	0	100.00%
Totals	73	73	0	100.00%

- **Form Identification Accuracy Summary Report**

Form Identification Accuracy Summary Report

From 4/1/2015 to 4/15/2015

Batch Type	Number of Images Processed	Number of Images Successfully Identified	Number of Images Failed Indentification	Image Indentification Rate
Totals	30	30	0	100.00%

- **MICR Recognition Accuracy Report**

MICR Recognition Accuracy Report

From 4/1/2015 to 4/22/2015

Transport	#MICR Lines Processed	# MICR Lines Corrected	Percentage MICR Corrected	# MICR Characters Processed	# MICR Characters Corrected	Percentage MICR Characters Corrected
91	1574	291	18.49%	1550	95	6.13%
Totals	1574	291	18.49%	1550	95	6.13%

- **Hand-Print Field Type Recognition Accuracy Report**

QUICK Reports

Hand-Print Field Type Recognition Accuracy Report

4/22/2015

Form Type		# Images Processed	# Fields Processed	# Fields Successfully Read	Field Accuracy Rate
CHECK					
	Hand-Print				
	Current	0	0	0	0.00%
	YTD	78	78	0	0.00%
	Hand-Print Alpha Numeric				
	Current	0	0	0	0.00%
	YTD	78	468	461	98.50%
	Hand-Print Alpha				
	Current	0	0	0	0.00%
	YTD	78	86	83	96.51%
CIT103					
	Hand-Print				
	Current	0	0	0	0.00%
	YTD	10	90	80	88.89%
	Hand-Print Alpha Numeric				
	Current	0	0	0	0.00%
	YTD	10	0	0	0.00%
	Hand-Print Alpha				
	Current	0	0	0	0.00%
	YTD	10	47	47	100.00%
FAB103					
	Hand-Print				
	Current	0	0	0	0.00%
	YTD	9	81	72	88.89%
	Hand-Print Alpha Numeric				
	Current	0	0	0	0.00%
	YTD	9	24	23	95.83%
	Hand-Print Alpha				
	Current	0	0	0	0.00%
	YTD	9	20	18	90.00%

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- **Image ID Accuracy Detail Report by Form Type**

QUICK Reports

Image ID Accuracy Detail Report by Form Type

From 4/1/2015 to 4/15/2015

BATCHTYPE	Form Type	# Images Processed	# Successfully Identified	# Images Failed Identification	Image Identification Rate
DCS					
	CORRESPONDENCE	0	0	0	0.00%
	CORRESPONDENCE_BACK	0	0	0	0.00%
	DCSAPP	3	3	0	100.00%
	DCSCON	3	3	0	100.00%
	DCSCOR	0	0	0	0.00%
	DCSFIN	3	3	0	100.00%
	DCSKEY	2	2	0	100.00%
	DCSMED	1	1	0	100.00%
	NON_FORM	0	0	0	0.00%
	Return_Back	12	12	0	100.00%
	Total	*24*	*24*	*0*	*100.00%*
Money					
	Check	0	0	0	0.00%
	Check_Back	0	0	0	0.00%
	CORRESPONDENCE	5	5	0	100.00%
	CORRESPONDENCE_BACK	1	1	0	100.00%
	RADOT	0	0	0	0.00%
	RAIFTA1	0	0	0	0.00%
	RAIFTA101	0	0	0	0.00%
	RAIT41	0	0	0	0.00%
	RAIT41ES	0	0	0	0.00%
	RAMCFT1	0	0	0	0.00%
	RAMCFT101	0	0	0	0.00%
	RAUCR	0	0	0	0.00%
	RETURN_BACK	0	0	0	0.00%
	Total	*6*	*6*	*0*	*100.00%*

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- **Inventory Aging Report by Queue**

Inventory Aging Report by Queue

From 4/1/2015 to 4/15/2015

Queue Name	Number of Objects	Avg. Time Since Scanned (hours)	Max time Since Scanned (hours)	Avg. Time in Queue (hours)	Max time in Queue (hours)	Avg. Processing Time (hours)	Max Processing Time (hours)
Balance	31	0.45	0.48	0.02	0.03	0.00	0.01
BatchIntegrity	13	0.19	0.42	0.00	0.00	0.00	0.00
Capture	3	0.32	0.42	0.00	0.00	0.00	0.00
Enhance	13	0.17	0.40	0.04	0.06	0.02	0.06
ImageBurn	33	0.46	0.48	0.00	0.00	0.00	0.00
Indexing	2	0.36	0.38	0.10	0.10	0.00	0.00
Output1	33	0.51	0.52	0.00	0.00	0.00	0.00
Output2	31	0.52	0.53	0.00	0.00	0.00	0.00
Review_BI	1	0.30	0.30	0.30	0.30	0.16	0.16
Review_Indexing	3	0.26	0.27	0.18	0.18	0.01	0.01
Transform	33	0.53	0.55	0.01	0.02	0.00	0.00
WF_C21Export	31	0.52	0.52	0.03	0.05	0.00	0.00
WF_C21Import	31	0.47	0.48	0.00	0.00	0.00	0.00
Totals		0.46	0.55	0.01	0.30	0.00	0.16

- **Machine-Print Field Type Recognition Accuracy Report**

Machine-Print Field Type Recognition Accuracy Report

4/21/2015

Form Type		# Images Processed	# Fields Processed	# Fields Successfully Read	Field Accuracy Rate
CHECK					
	Machine-Print Numeric				
	Current	38	0	0	0.00%
	YTD	78	0	0	0.00%
	Machine-Print Alpha Numeric				
	Current	38	82	77	93.90%
	YTD	78	127	117	92.13%
	Machine-Print Alpha				
	Current	38	77	74	96.10%
	YTD	78	90	86	95.56%
CIT103					
	Machine-Print Numeric				
	Current	10	0	0	0.00%
	YTD	10	0	0	0.00%
	Machine-Print Alpha Numeric				
	Current	10	12	11	91.67%
	YTD	10	12	11	91.67%
	Machine-Print Alpha				
	Current	10	41	40	97.56%
	YTD	10	41	40	97.56%

- **MICR Data Entry Operator Performance Report**

QUICK Reports

MICR Data Entry Operator Performance Report

From 4/1/2015 to 4/22/2015

Operator ID	Number of Keystrokes	# MICR Lines Corrected	Work Hours	Keystrokes Per Hour	# MICR Per Hour
admin	190	71	0.20	962.03	359.49
CJohnson	340	136	0.57	593.31	240.81
DBartlett	120	41	0.18	664.62	227.08
JLafavor	130	41	0.19	668.57	210.86
Totals	*780*	*291*	*1.15*	*680.89*	*254.03*

- **Output Report**

QUICK Reports

Output Report

From 4/1/2015 to 4/22/2015

Batch Types	# Batches	# Transactions	Average Time to Process (Hours)	Max Time to Process (Hours)
Money	4	35	0.08	0.81
NoMoney	3	30	0.07	0.07
Remit	2	20	0.05	0.05
Total	*9*	*85*	*0.07*	*0.81*

- **Scanning Report**

QUICK Reports

Scanning Report

4/22/2015

Batch Type		Number of Batches	Number of Transactions	Number of Pages	Avg. Transactions per Batch	Avg. Pages per Transaction
Money	Current	0	0	0	0.00	0.00
	YTD	4	35	140	8.75	4.00
NoMoney	Current	0	0	0	0.00	0.00
	YTD	3	30	120	10.00	4.00
Remit	Current	0	0	0	0.00	0.00
	YTD	2	20	80	10.00	4.00
Total	*Current*	*0*	*0*	*0*	*0.00*	*0.00*
	YTD	*9*	*85*	*340*	*9.44*	*4.00*

- **Transaction Kill Rate Performance Report**

QUICK Reports

Transaction Kill Rate Performance Report

From 4/1/2015 to 4/15/2015

Transport	# Transactions Processed	# Transactions Killed	#Transactions Corrected	Transaction Kill Rate
01	39	33	6	84.62%
Totals	*39*	*33*	*6*	*84.62%*

- **Transaction Balancing Operator Performance Report**

QUICK Reports

Transaction Balancing Operator Performance Report

From 4/1/2015 to 4/22/2015

Operator ID	# of Transactions Balanced	Work Hours	Transactions Per Hour
admin	49	0.49	100.80
CJohnson	93	0.67	139.79
DBartlett	28	0.22	125.22
JLafavor	32	0.23	142.22

- **Transaction Kill Rate Performance Report**

QUICK Reports

Transaction Kill Rate Performance Report

From 4/1/2015 to 4/15/2015

Transport	# Transactions Processed	# Transactions Killed	#Transactions Corrected	Transaction Kill Rate
01	39	33	6	84.62%
Totals	*39*	*33*	*6*	*84.62%*

4.17.3 What administration tools are provided to monitor batch and workflow status? Is the data presented real-time?

Vendor Response:

The proposed solution includes *Quick* Workflow Monitor, a module that provides real-time administrative and management oversight into the current performance of the system of the *Quick* Modules software. Every process within the proposed system and its associated queue(s) can be monitored. If desired, any transaction within any queue as well as the details associated with the transaction can also be viewed.

The *Quick* Workflow Monitor enables the operation management viewing of the number of transactions in a queue, the status of each transaction and associated documents, the contents of each transaction and any errors that occurred in any transaction. *Quick* Modules logs actions undertaken on all transactions into log files for each module in the system, to include date and time and type of message. This information may be accessed in real-time, and may be displayed using *Quick* Workflow Monitor. *Quick* Modules relies heavily on log files to inform the system administrator of the progress of the various operations that it performs. Particularly, all error and exception conditions are logged.

4.17.4 Does the proposed solution allow multiple operators to work on the same batch at the same time?

Vendor Response:

The proposed solution will allow multiple operators to work on the same batch at the same time. *Quick* Modules operates in both, batch mode and transaction mode. WV Tax can select which boundary should be configured as batch or transaction mode. For example, when a batch of transactions is introduced into the system from the ibml scanners the *Quick* Modules system can break the batch into individual transactions and send each transaction to the appropriate workflow queue. Therefore multiple operators can login to the same queue, balancing for example, and work on different transactions, even though all transactions belong to the same batch.

4.17.5 Describe how the proposed solution routes exceptions that require supervisor review/ decision.

Vendor Response:

The proposed solution can route exceptions to the *Quick* Review application based on a number of exception rules. For example, if a transaction is missing a document, the Batch Integrity module can automatically route the transaction to *Quick* Review for a supervisor to review and attach the missing document. Also, an operator can also manually route a transaction from within *Quick* Key to a supervisor for review and approval.

4.17.6 Describe how the proposed solution tracks work from scanning until completion.

Vendor Response:

The *Quick* Workflow Monitor module provides real-time administrative and management oversight into the current performance of the system of the *Quick* Modules software. Every process within the proposed system and its associated queue(s) can be monitored. This includes all ibml scanning activities and transactions within the *Quick* Modules workflow.

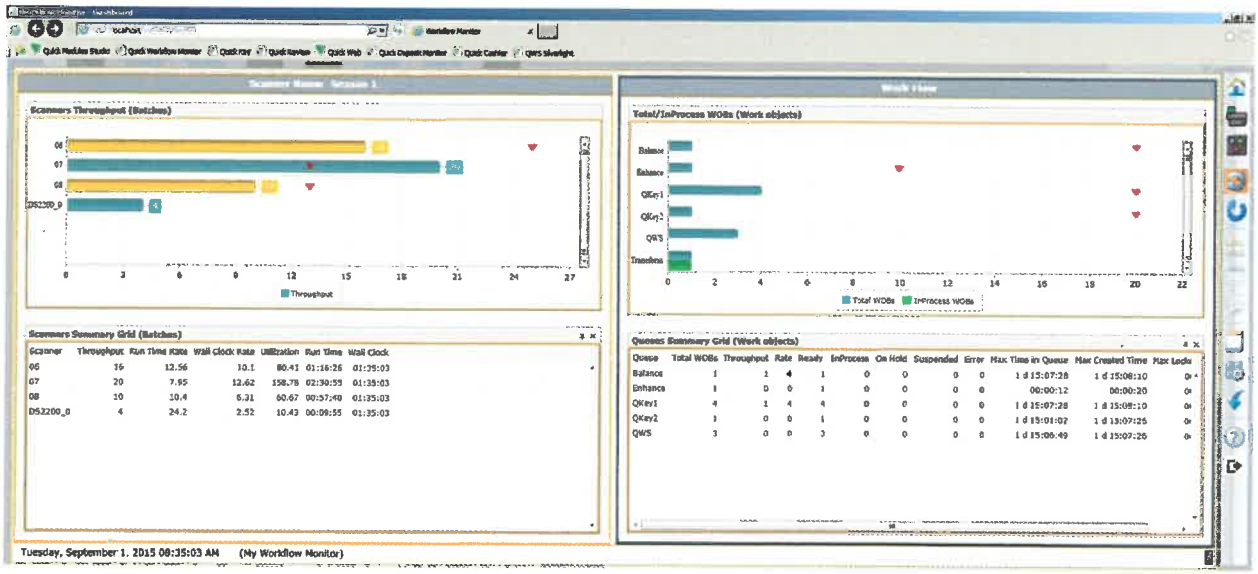

Figure 74 - *Quick* Workflow Monitor Home Page

Dashboard displays are provided to track the items from mail opening to output using the operator's choice of graphic or text display. The system provides high level views of the workflow to determine production gates and identify processing queues.

Each supervisor with access to *Quick* Workflow Monitor will have their own personal profile and will be presented with their own displays upon login to the system. Panels can be added or customized to display relevant information.

4.17.7 Describe your system's ability to prioritize the processing of different batches of work. Describe the different levels of prioritization available. i.e. - batch, customer, date, box, etc.

Vendor Response:

Quick Modules solution provides prioritization of transactions and batches throughout the workflow. All modules as part of the *Quick* Modules solution operate as guided by our *Quick* Workflow module that determines routing of work based upon selected business rules.

Quick Workflow can prioritize, schedule, and route work between the various system modules in the *Quick* Modules system and thus customize the workflow to the specific needs of WV Tax. This feature helps make our solution superior because it will allow WV Tax to prioritize work based on such important criteria as work type or dollar value to customize the workflow of the system to WV Tax's needs.

4.17.8 What is the retention period of reports?

Vendor Response:

Retention period of system data is dependent on WV Tax's business requirements. All report data is stored in the SQL Server databases and can be purged using the included *Quick* Purge

module. If WV Tax wishes to store report data for an extended period then additional storage is required for the databases.

4.17.9 How does report generation affect production processing? Do reports have to be run during 'downtime'? Are reports and file outputs available throughout the day? Describe the process.

Vendor Response:

The reporting application, *Quick* Reports, is designed around the Microsoft SQL Server Reporting Services (SSRS). All data captured or entered is available for immediate access in the SQL Server database. SSRS provides WV Tax with the ability to generate customs reports based on the data in the SQL tables.

Most statistical reports can be generated once the batch is processed completely. Statistical data is located in a different SQL database and will not impact the production database. However, depending on the SQL Server hardware resources, some custom reports could have an impact on the production SQL Server and should not be run during peak hours.

Output file generation can also be scheduled throughout the day, depending on WV Tax's requirements. The *Quick* Output module can be configured to generate output files at the end of the day or at different time intervals, such as after each batch is completed.

4.17.10 Describe your system's ability to monitor incoming volumes and items processed by hour for each data entry function, capture device, application, and work type.

Vendor Response:

The *Quick* Workflow Monitor module provides real-time administrative and management oversight into the current performance of the system of the *Quick* Modules software. Every process within the proposed system and its associated queue(s) can be monitored. If desired, any transaction within any queue as well as the details associated with the transaction can also be viewed.

The *Quick* Workflow Monitor enables the operation management viewing of the number of transactions in a queue, the status of each transaction and associated documents, the contents of each transaction and any errors that occurred in any transaction. *Quick* Modules logs actions undertaken on all transactions into log files for each module in the system, to include date and time and type of message. This information may be accessed in real-time, and may be displayed using *Quick* Workflow Monitor.

4.17.11 Does your system incorporate management dashboards? If yes, describe.

Vendor Response:

The *Quick* Workflow Monitor module provides real-time administrative and management

oversight into the current performance of the system of the *Quick* Modules software. Every process within the proposed system and its associated queue(s) can be monitored.

Dashboard displays are provided to track the items from mail opening to output using the operator's choice of graphic or text display. The system provides high level views of the workflow to determine production gates and identify processing queues.

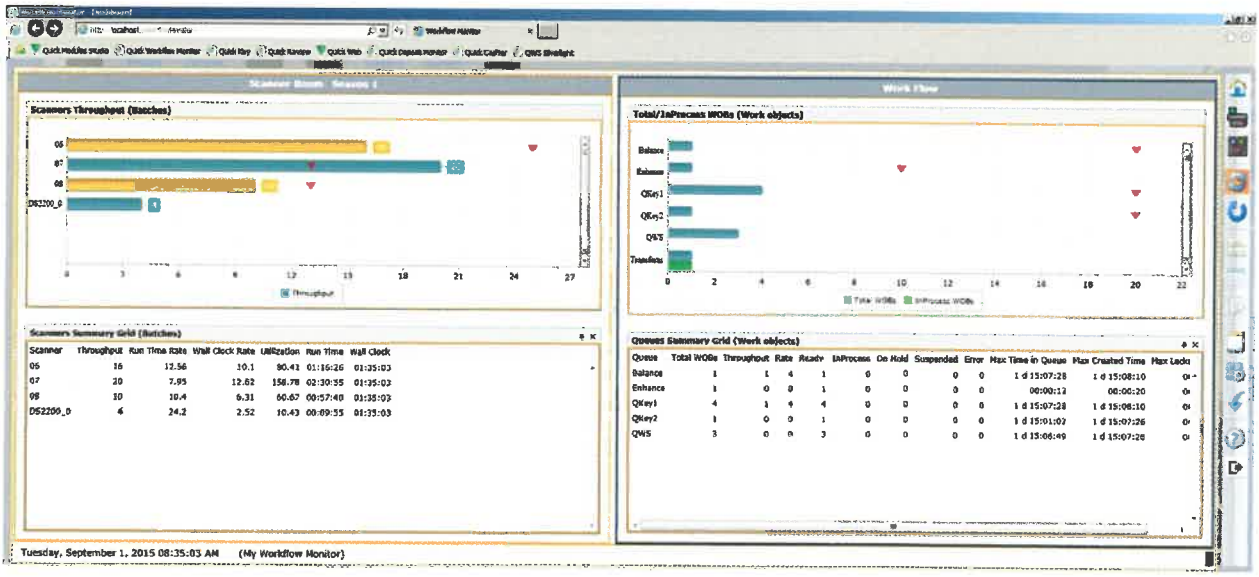

Figure 75 - *Quick* Workflow Monitor Home Page

Attachment B: Mandatory Specification Checklist

The following mandatory requirements must be met by the Vendors as part of the submitted proposal. Failure on the part of the Vendor to meet any of the mandatory specifications shall result in the disqualification of the proposal. The terms "must", "will", "shall", "minimum", "maximum", or "is/are required" identify a mandatory item or factor. Decisions regarding compliance with any mandatory requirements shall be at the sole discretion of the Purchasing Division.

Section 5, Subsection 5.1:

5.1.1 Vendor confirms their solution will provide an upgrade to the latest Quick Modules software at either no cost or costs for only those modules not currently installed at WV TAX.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Fairfax Imaging is providing the proposed *Quick* Modules 5.0 (QM 5.0) modules to WV Tax at no cost for those modules currently installed at WV Tax. Only new modules which are not in use today at WV Tax, such as Check 21 are being priced into our solution pricing.

5.1.2 Vendor confirms their solution will provide a common architecture for all form types within a common workflow, using a single product platform to reduce the number of different (vendor) systems required for processing and support.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Quick Modules 5.0 provides a common architecture for all form types within a common workflow, using a single platform to eliminate the need for different vendor systems for processing and support. The proposed *Quick* Modules 5.0 system will process all forms, remittance, correspondence, envelopes and other items scanned on the ImageTrac scanners within the workflow of the system.

5.1.3 Vendor confirms their solution will be able to process intermixed, full page returns, coupons, checks, envelopes and other items intermixed within the same system platform.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The proposed *Quick* Modules 5.0 system will process intermixed, full page returns, coupons, checks, envelopes and other items intermixed within the system.

5.1.4 Vendor confirms their system will provide unlimited, unrestricted software licensing to the State for all software modules.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Fairfax Imaging is providing to WV Tax an unlimited, unrestricted software licensing to the WV Tax for all *Quick* Module 5.0 software modules.

5.1.5 Vendor confirms their system will not be restricted to the number of images processed for data capture, including check recognition and must include software licensing that is unlimited and unrestricted. No click charges are to apply to any of the software modules for processing.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Fairfax Imaging confirms that the proposed system is not restricted by licensing to the number of images processed for data capture, including check recognition. Fairfax Imaging is providing an unlimited and unrestricted license to all *Quick* Modules 5.0 software to WV Tax. No click charges apply to any of the *Quick* Modules software modules proposed.

5.1.6 Vendor confirms their system will be able to process intermixed from types and perform virtual batching.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The *Quick* Modules 5.0 system allows intermixed form types to be processed (scanned) on the ImageTrac scanner and through form identification either on the scanner or within the system form ID process, place like form types into similar queues (by tax type or form type) electronically in order to reduce sorting requirements. This virtual batching capability is an inherent feature of the *Quick* Modules 5.0 system.

5.1.7 Vendor confirms their system will be able to process in batch and/or transaction level depending upon the workflow setup within the system.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The *Quick* Modules 5.0 system will perform work in batch and/or transaction level depending upon the configuration setup in the system. Within the system's configuration tool, *Quick* Modules Studio (QMS), the designer can select within a workflow boundary whether or not to work in batch or transaction mode.

5.1.8 Vendor confirms their system will have a common configuration environment for setting up forms workflow and business rules.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Quick Modules Studio (QMS) provides a common configuration environment for setting up/configuring such items as:

- Form types
- Fields for recognition
- Business rules for validation/edits
- Math blocks
- Workflow and rules associated with the workflow routing
- Error messages
- User permissions

5.1.9 Vendor confirms their system will have a common library of business rules which can be selected by field for each form type. This common library of business rules must be available to all applications/jobs within the system.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Quick Modules Studio, referred to as "QMS," is a Web-based administrative tool used to manage and develop the solutions required to properly implement *Quick* Modules. It serves as a centralized development environment that allows the development, testing, and deployment of applications within *Quick* Modules.

QMS is the single location for all job setup - from forms and remittance processing to security for users, creating and selecting validations and edits, designing workflows to moving the

environments from development, test and into production.

Validation rules are easily setup, many without the need of programming and become libraries to the application(s) that can be selected and maintained within the system. For each form and field within the form, the user is able to set the specific business rules associated with that dataset. Should a customized rule be required, it is easily added to the table and can be selected. All business rules are stored as libraries for future and common use across all applications.

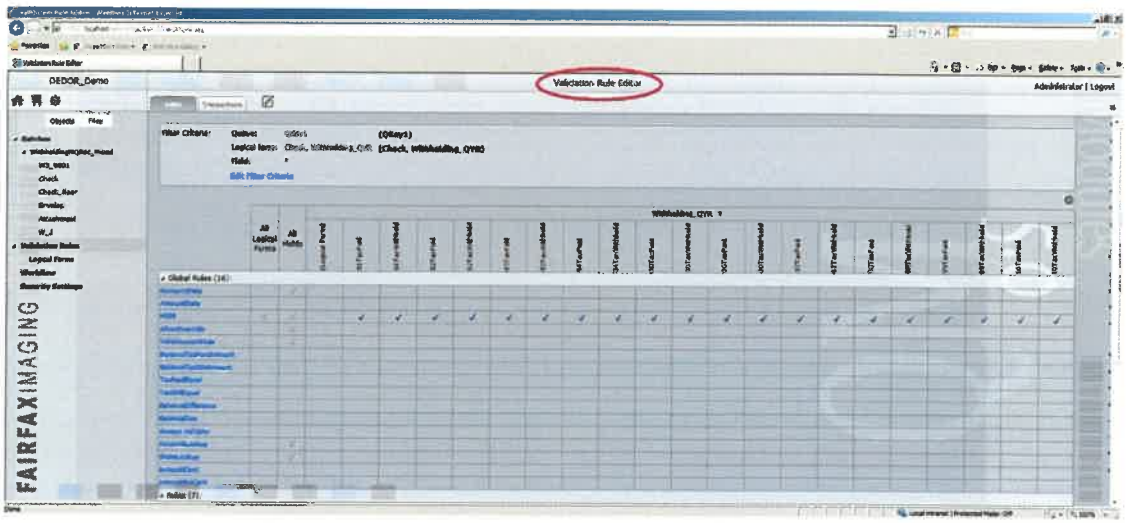

Figure 76 - Validation Rules Example

5.1.10 Vendor confirms their system will utilize thin client architecture for all user interfaces.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

All user interfaces within the *Quick* Modules 5.0 system utilize thin client architecture, providing access to the system through standard web browser with appropriate security connection and authentication.

5.1.11 Vendor confirms their system will provide Check 21 process with acceptance of configuration of deposit from the bank. This process must include a user interface for monitoring the deposit process.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Quick Modules 5.0 is being provided with Fairfax Imaging *Quick* Check 21 modules for the electronic deposit of checks to WV Tax bank. Upon creation of the appropriate 937 electronic ICL (Image Cash Letter) file, the system will transmit the deposit file to the bank via secure encrypted methods. Confirmation of the file can be sent by the bank to the *Quick* Modules Check 21 system for notice of acceptance of the deposit along with any items which are identified as rejected.

The user interface Deposit Monitor provides reports on check aging (if checks are not immediately deposited), invalid checks, and the deposits status sent through Check21. It also provides functionality to fix rejected items and to mark them for redeposit. The Deposit Monitor application researches deposits by date and by status. Reports are generated as comma delimited files that can be loaded in Excel.

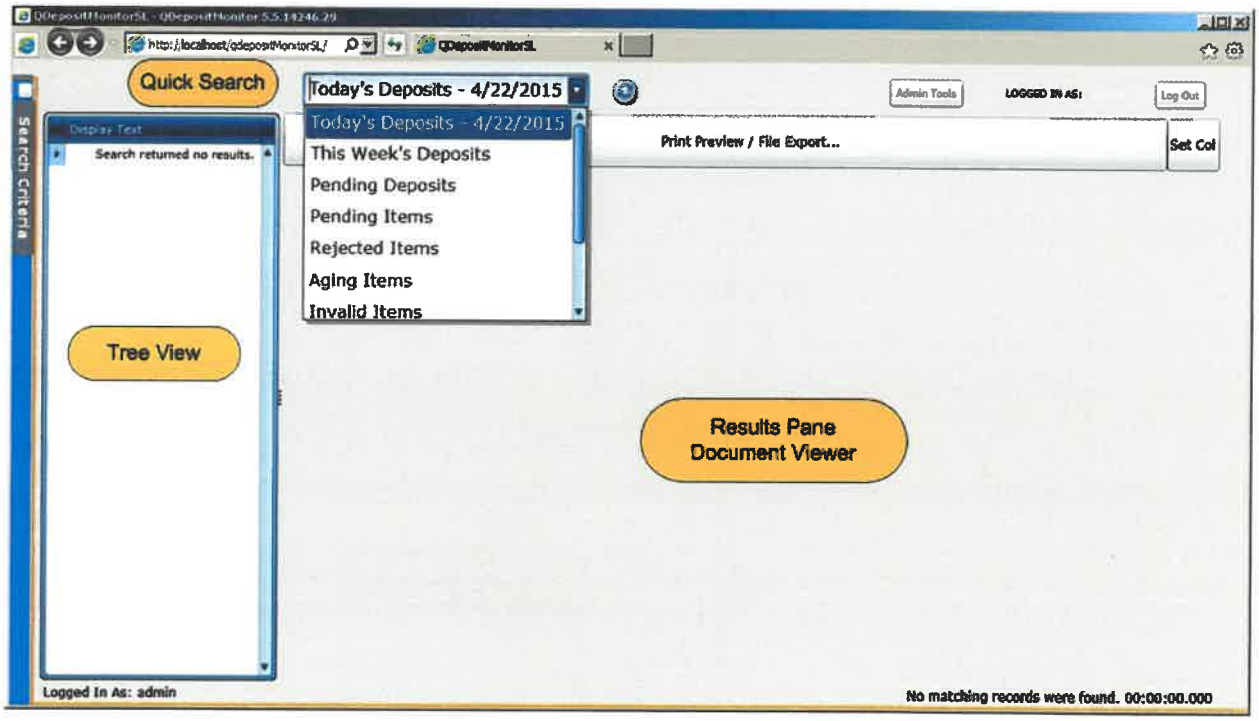

Figure 77 - Deposit Monitor Screen Layout

5.1.12 Vendor confirms their solution will be database driven using COTS software such as MS SQL.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The *Quick* Modules 5.0 system is a database centric product and uses MS SQL as the database.

5.1.13 Vendor confirms their solution will have the ability to authenticate with Active Directory.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The *Quick* Modules 5.0 system will utilize Active Directory and use AD to authenticate users for logging into the *Quick* Modules system.

5.1.14 Vendor confirms their solution will include a visual dashboard which provides real time updates to process from scanning to output. Vendor confirms the dashboard will provide the ability to search for items in the workflow while in process.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The *Quick* Workflow Monitor module provides real-time administrative and management oversight into the current performance of the system of the *Quick* Modules software and its associated queue(s) within the system. If desired, a transaction within a queue as well as the details associated with the transaction can also be viewed. *Quick* Workflow Monitor provides the ability to search for items in the workflow that are work in progress as well.

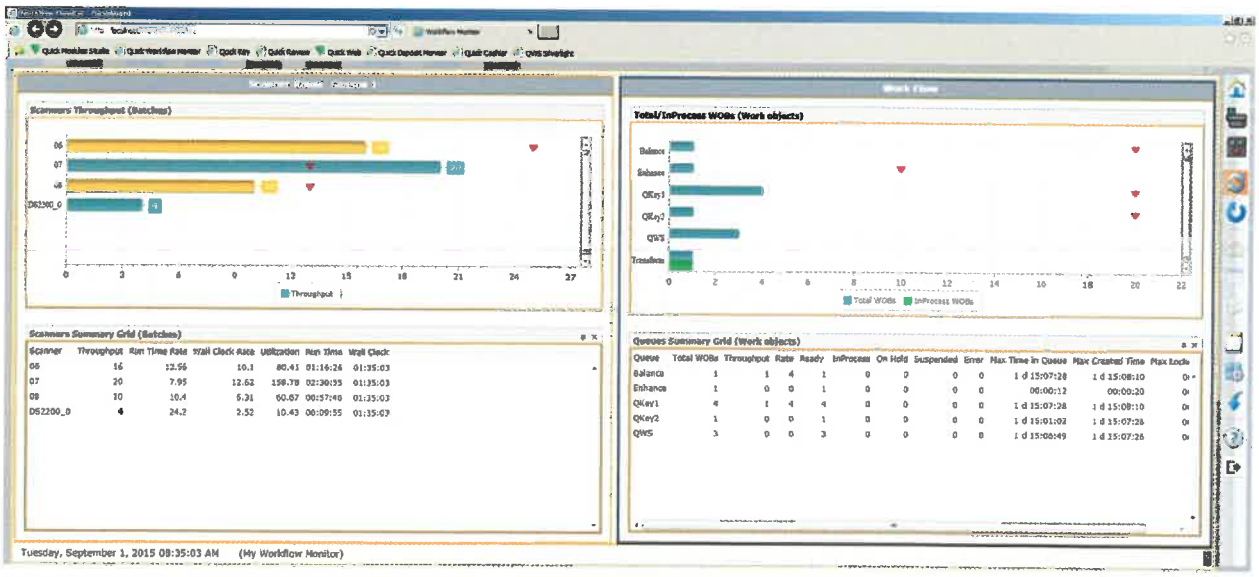

Figure 78 - *Quick* Workflow Monitor Home Page

The *Quick* Workflow Monitor enables the operation management viewing of the number of transactions in a queue, the status of each transaction and associated documents, the contents of each transaction and any errors that occurred in any transaction. *Quick* Modules logs actions undertaken on all transactions into log files for each module in the system, to include date and time and type of message. This information may be accessed in real-time, and may be displayed using *Quick* Workflow Monitor. *Quick* Modules relies heavily on log files to inform the system administrator of the progress of the various operations that it performs. Particularly, all error and exception conditions are logged.

Section 5, Subsection 5.2:

5.2.1 Vendor confirms their solution shall provide real-time read/write access to the scanner database while scanner is running.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 with ibml SoftTrac Capture Suite software allows for real time read and write access to the SQL server database and Image Repository while the scanner is running. This allows for no metadata or images to be stored locally on the scanner.

5.2.2 Vendor confirms their solution shall be able to provide the table layout of the database.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

As part of the Project Implementation, the table layout for the *Quick* Modules system as well as the ImageTrac SoftTrac Capture Suite software used on the scanners will be provided to WV Tax.

5.2.3 Vendor confirms their solution shall be able to configure the images to be stored on the scanner or on the network.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Ibml's SoftTrac Capture Suite software provides for many options that can be configured within the software to meet the security and compliance needs of our customers. SoftTrac can be configured to store temporary images in memory prior to being written to the network files storage, eliminating the risk associated with writing PI or PHI to the hard drive of the host pc.

5.2.4 Vendor confirms their solution will use multiple barcodes to determine pocket selection.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Within ibml's SoftTrac Capture Suite software, the ImageTrac 6400 solution can identify barcodes and determine pocket selection based on the barcode read. The ImageTrac 6400 uses software based bar code reading technology called DocNetics-Barcode for recognition and reading of all 1D, postal, 4-state and 2D bar codes

5.2.5 Vendor confirms their solution will be able to start a new batch based off of reading a new batch header sheet.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Ibml's SoftTrac Capture Suite software can be configured to use barcode information read from a batch header sheet to decide to automatically start a New Batch. Every time a new batch header sheet is read, a new batch will be created.

5.2.6 Vendor confirms their solution will be able to alternate between pockets when next batch is started.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 is configured with one small pocket for checks, and two large pockets for all other documents. These two large pockets can be configured where each time a batch header is read it will send the batch to the next available pocket. As an

example of the batch waterfall option, a batch header is read and the batch will go to pocket 2, the next batch is read and the batch will go to pocket 3. When the next batch header is read, the batch will go back to pocket 2 and will continue alternating back and forth between the 2nd and 3rd pockets each time a new batch header is read. All checks that are read will be out sorted to the 1st pocket.

5.2.7 Vendor confirms that when alternating between pockets on new batch, their proposed scanner will be able to stop the track if the next pocket has not been emptied.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 can be configured to halt the track if the next pocket has not been emptied when using the batch waterfall option. Once the pocket has been emptied by the operator, the operator will press the pocket display button to mark the pocket as empty. If the pocket is not emptied and marked as emptied, the scanner will halt the track and notify the operator that this pocket needs to be emptied before continuing to scan.

5.2.8 Vendor confirms their solution shall be able to handle various barcode symbologies and various barcode lengths simultaneously.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 scanner is equipped with DocNetics barcode recognition which will identify/read barcodes that are 1D, 2D, PostNet and QR codes.

The ImageTrac solution has been configured to use DocNetics-Barcode software to identify barcodes. DocNetics-Barcode is used for recognition and reading of all 1D, postal, 4-state and 2D bar codes. With DocNetics-Barcode, bar code positioning is no longer critical to proper decoding of the bar code. The DocNetics software locates and searches for specified bar code symbologies on all images as that are captured on the ImageTrac. The software may be configured to read multiple 1D and 2D symbologies of multiple lengths simultaneously on front and/or rear image.

Below are the listed DocNetics Barcode Supported Symbologies:

4-State
Codabar
Codablock
Code 11
Code 128
Code 3 of 9
Code 93
Interleaved 2 of 5
Matrix 2 of 5
UPC/EAN/JAN
Patch Code (1, 2, 3, 4, 6, T)
Aztec (2D)
Data Matrix (2D)
PDF 417 (2D)
QR (2D)
Planet
Postnet
UPU
IMB

Within the *Quick* Modules 5.0 system, our *Quick* Capture module is capable of automatically recognizing barcodes (all fonts, all sizes, and all shapes).

Figure 79 – Sample Barcode

In addition to the above linear barcode, *Quick* Capture will automatically recognize and interpret two-dimensional barcodes in various sizes (i.e. 10 mil, 15 mil, etc.) as well as QR codes.

Figure 80 – Sample 2D Barcode

Figure 81 - Sample QR code

5.2.9 Vendor confirms the throughput rates at 300dpi will be over 280 pages per minute while scanning 8.5 X 11 inch documents.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 provides duplex scanning at either 200 or 300 DPI at 286 pages per minute while scanning 8.5 X 11 inch documents in landscape orientation.

5.2.10 Vendor confirms their scanner will have a high speed option that provides throughput rates at 200dpi of over 420 pages per minute while scanning 8.5 X 11 inch documents.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 has a high-speed option at 200dpi of 429 pages per minute while scanning 8.5 X 11 inch documents in landscape orientation.

5.2.11 Vendor confirms their solution will have both hardware and ultrasound double feed detection.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 comes standard with a dual layer of doubles detection to ensure that double feeds do not occur. The first is a hardware friction based double feed mechanism that detects when two documents travel through the de-double module and slippage is detected. The second layer is an ultrasonic based doubles detection that detects when two documents travel down the track by detecting the presence of air between two pieces of paper. In the event where a double feed is detected, the track is stopped and a message is displayed to the operator that a double feed was detected.

5.2.12 Vendor confirms their solution will provide a scanner that will support full disk encryption.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 solution has many security features that can be configured to meet the security and compliance landscape of today. With these ibml suggested features enabled, including log file sanitization and temporary images to memory, no PI or PHI will be written to the scanner hard drive. This will allow for full disk encryption use without performance penalties.

5.2.13 Vendor confirms their solution scanner and software will be 508 compliant.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 solution is 508 compliant. Ibml has engaged subject matter experts in understanding not only the technical aspects of Section 508 but also the spirit of Section 508. Ibml is continuously looking at changes that allow for greater universal access.

5.2.14 Vendor confirms their solution will have an integrated camera and illumination system with dust free optical path.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac camera is a self-contained unit; assembled in a clean room to prevent dust and other particles from entering the camera housing and interfering with the optical path during assembly and in production. The illumination system of the of the ImageTrac cameras consists of high power cool LED (light-emitting diode) light source giving a high intensity of light while gaining prolonged bulb life and utilizing less energy.

5.2.15 Vendor confirms their solution capture software will be configured to sort documents as described directly through the software interface without programming.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The SoftTrac Capture Suite which is used on the ImageTrac scanners is configurable, without programming to sort documents on the scanner based upon triggers such as barcode identification, check, form size, etc. This configuration activity can be done either on the ImageTrac scanner or offline as part of the SoftTrac Administration license provided with the system configuration. Using the SoftTrac Capture Suite job setup software, users can point and click to choose the pocket where the document should be sorted. There is no programming needed to make sort decisions.

5.2.16 Vendor confirms their solution shall have an application controller, and will contain redundant hard drives (RAID 0 mirrored array), and redundant power supplies to minimize single points of failure in the sub-system.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 solution comes with an application controller pc that is designed specifically for the high availability of a high-speed scanning environment. ibml has been in the high-speed scanning business for 25 years and understands the mission critical nature of the business. The application controller pc is configured with redundant RAID mirrored array hard drives and power supplies for maximum up time.

5.2.17 Vendor confirms their solution will be able to convert existing ImageTrac applications (parm files) to the new solution.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 solution with ibml's SoftTrac Capture Suite software allows for the easy conversion of existing legacy parmfiles over to the new SoftTrac Capture Suite parmfiles. This is a conversion from xml to prmx files that is automatically done within the import function and will be performed as part of the Fairfax Imaging project tasks.

5.2.18 Vendor confirms their solution will be able to contain up to 1000 documents in the pockets before requiring the operator to clear the pockets.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 64000 pocket stacker will hold up to 1000 sheets of paper before requiring the operator to clear the pocket.

5.2.19 Vendor confirms their solution will have an automatic document feeder capable of holding 1500 documents.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 is equipped with a page document feeder that has a capacity of 1,500 sheets of paper (20lb). The systems auto feeder is designed with operator ease in mind. The system allows continuous loading and operation with providing the ability to load the document feeder without the need for stopping the transport. The feeder is equipped mechanical deskew and skew detection capabilities as well as mechanical Doubles Detection to ensure that each and every form is feed separately.

Furthermore, the system is equipped with Ultrasonic Doubles Detection which provides electronic detection of any situation where more than one piece of paper may have been feed and alerts the operator.

The page document feeder requires no presorting of documents. The ImageTrac 6400 will process a wide array of intermixed sizes and weights of paper without the need to sort. Coupled with Fairfax Imaging's *Quick* Modules system, the solution offered will provide "virtual batching" capabilities so as to allow electronic sorting of tax forms/types into different queues for ease of downstream processing, while maintaining the batch integrity of the original scanned batch.

Figure 82 – ibml ImageTrac 6400 – 1000+ Page Feeder Capacity

5.2.20 Vendor confirms their solution will have continuous feeding capabilities.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 feeder offers continues feeding capabilities to provide an efficient scanning activity. The feed tray is designed so that the operator can continually add batches of work while scanning to keep the scanner continuously running.

5.2.21 Vendor confirms their solution will support multiple Color of Greyscale images in a single job.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The ImageTrac 6400 solution can produce multiple image formats and types from a single job. Images can be captured in bi-tonal TIFF, grayscale color, and jpeg color formats at both 200dpi and 300dpi, all at scan time.

5.2.22 Vendor confirms their solution will store images in memory for security.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

The images captured will be stored in memory on the scanner prior to writing these to the network drive for storage, eliminating the rick associated with PI or PHI to the hard drive of the

local PC.

5.2.23 Vendor confirms their solution will deny scan operators access to the image repository.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Operators at the scanner will not have access to the image repository. The ImageTrac 6400 solution using ibml's SoftTrac Capture Suite software uses a feature called "impersonation" to access the image repository. The scanner application writes to the customer's network with a different network user account than the one used by the scan operator. The result is the operators no longer require access to the network file storage.

5.3.1 Vendor confirms their solution will have a duplicated production environment for testing.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Fairfax Imaging will provide three separate environments to WV Tax – Development, Test, and Production for the *Quick* Modules system.

5.4.1 Phase 1: Installation of hardware, software, testing, training, documentation, and first set of forms. Forms shall include change returns and Gentax Vouchers. Phase 1 must be completed within six (6) months from the issuance of the Notice to Proceed.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Our Project Plan submitted herein to this RFP response adheres to this requirement for implementation of Phase 1 forms in six months from issuance of Notice to Proceed on the project.

5.4.2 System Acceptance shall be defined as the successful demonstration and testing of all equipment and system requirements, including but not limited to training. Agency will not formally accept the System until the System has operated without failure for thirty (30) consecutive days. The Agency with the Vendor's mutual Acceptance will issue written letter and Change Order request to the West Virginia Purchasing Division as formal Acceptance of the System. Upon agreement of acceptance by both the Agency and the Vendor, the Change order issued by the WV Purchasing Division will start the First-

Year Maintenance Support, warranty. This date will be used for yearly maintenance/support/warrant initiated by the Agency and agreed to by the Vendor and issued by the WV Purchasing Division.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement and agrees to the stated provisions of System Acceptance as defined above.

5.4.3 Phase 2: Testing, training, documentation, and 2nd set of forms. Forms in Phase 2 shall include PIT returns. Phase 2 must be completed within six (6) months of the acceptance of the system.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Our Project Plan submitted herein to this RFP response adheres to this requirement for implementation of Phase 2 forms in six (6) months from the acceptance of the system.

5.4.4 Phase 3: Testing, training, documentation, final set of forms, and shutdown of current IFP system. Forms in Phase 3 shall include business returns. Phase 3 must be completed within twelve (12) months of the acceptance of the system.

Vendor Response:

Fairfax Imaging confirms that our proposed solution is fully compliant with this requirement.

Our Project Plan submitted herein to this RFP response adheres to this requirement for implementation of Phase 3 forms in twelve (12) months from the acceptance of the system.

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Fairfax Imaging, Inc.
(Company)

[signature] President and Co-Owner
(Representative Name, Title)

(703) 802-1220 (x103) / 813-881-1600 (Fax)
(Contact Phone/Fax Number)

4/17/2017
(Date)

Technical Architecture

Fairfax Imaging's *Quick* Modules solution uses an open, flexible, client-server architecture based on the Microsoft Windows Server Operating System and built on the Microsoft .NET platform. Servers running Microsoft Windows Server 2008/2012 are required. Microsoft SQL Server 2012/2014 is also required. The system requires a minimum of three servers for the production environment, consisting of an Application server, SQL server, and Web (IIS) server. This configuration is based on three-tier architecture.

As a server based solution, *Quick* Modules requires workstations (PC's) that are networked to the server(s). The *Quick* Modules solution requires the following supported browsers with the Microsoft Silverlight plugin:

- Internet Explorer 11

A wide array of scanners is supported on the *Quick* Modules system for imaging of documents, including the ibml ImageTrac family of scanners.

Additionally, a variety of scanners which represent image only style of scanners that include a single pocket from manufacturers such as Kodak, Fujitsu, Canon, and others are also supported for use with the *Quick* Modules system.

Fairfax Imaging is a certified reseller and trained on of all of these scanning platforms.

Fairfax Imaging's client-server architecture is very flexible and can be configured to take advantage of many High-Availability (HA) solutions available today. The results are a robust solution that provides a continuous operation with zero data loss and zero downtime. This is made possible through the use of HA features such as server clustering and/or VMware Fault-Tolerance. Fairfax Imaging's proposed solution is based on three-tier architecture.

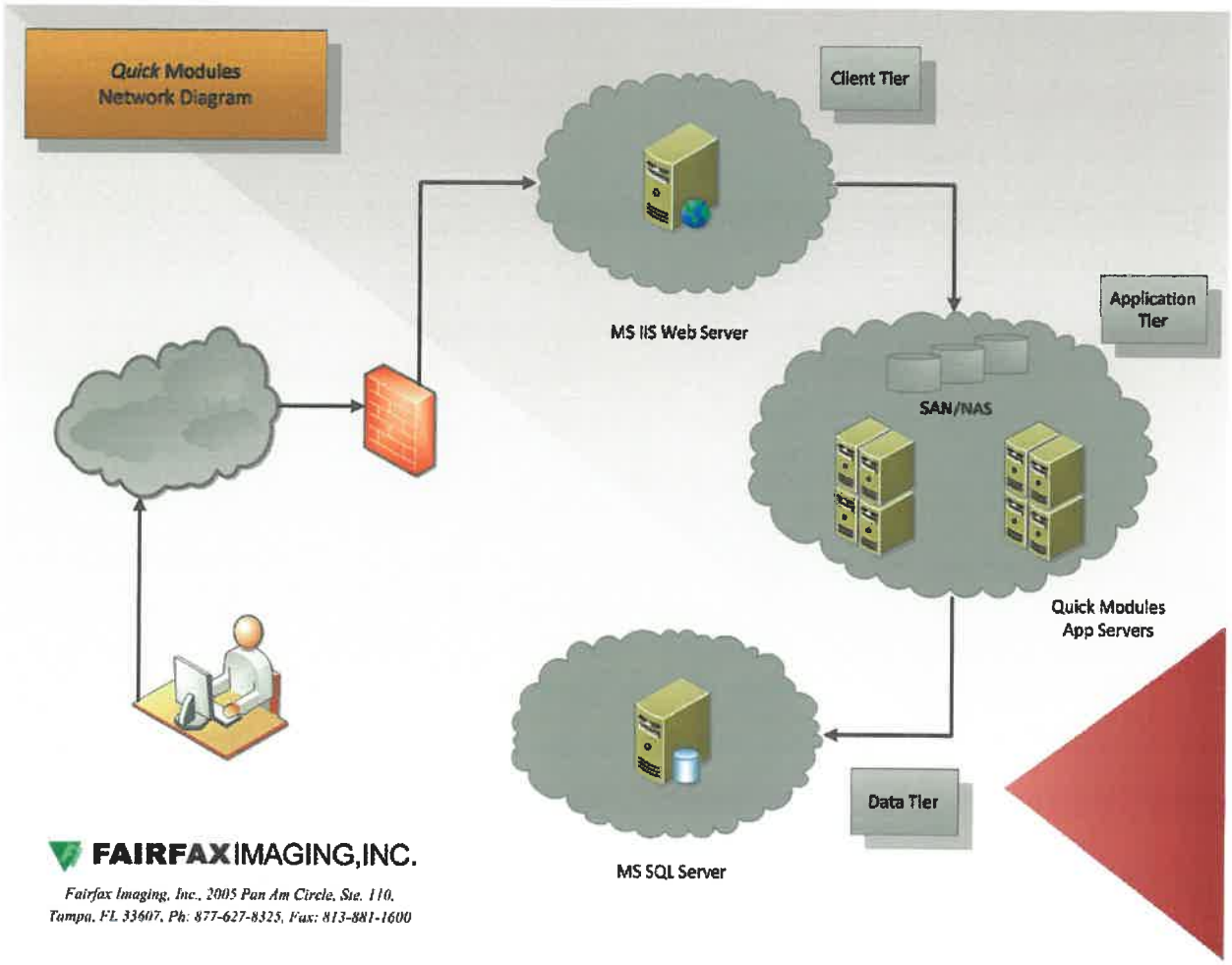

Figure 83 – Three-Tier Infrastructure Diagram

The three-tier architecture offers many benefits, including security, availability, scalability, and flexibility:

- Security: Systems within three-tier architecture can be isolated to limit access and exposure.
- Availability: Each tier is independent from the other tiers; this provides the benefit of not having a single point of failure.
- Scalability: Each tier can be scaled as desired without affecting the other tiers.
- Flexibility: Each tier can be managed or scaled independently giving the system increased flexibility.

The number of servers required varies depending on the volume of documents processed. Each tier can be scaled independently to handle the required load. This scalability will allow WV Tax to expand the system in the future as the need arises. For high volume sites, additional servers can be deployed to spread the load during the capturing stage and processing of the OCR data. Fairfax Imaging recommends the following servers for the production:

Required Servers for Production:

- (1) Database (SQL) Server (MS Windows Server 2008/2012, MS SQL Server 2008/2012)
    - SQL Server 2012/2014 for the *Quick* Modules system
    - SQL Server Enterprise Edition required for Database encryption
- (3) Application Server (MS Windows Server 2008/2012)
- (1) IIS Server (MS Windows Server 2008/2012)

Required Servers for Development:

- (1) Application Server (MS Windows Server 2008/2012)
- (1) IIS Server (MS Windows Server 2008/2012)
- (1) Database (SQL) Server (MS Windows Server 2008/2012, MS SQL Server 2008/2012) – shared with test environment

Required Servers for Testing:

- (1) Application Server (MS Windows Server 2008/2012)
- (1) IIS Server (MS Windows Server 2008/2012)
- (1) Database (SQL) Server (MS Windows Server 2008/2012, MS SQL Server 2008/2012) – shared with development environment

All servers listed above will be configured as Virtual Machines (VM) in VMware vSphere. The following is the recommended hardware for the proposed solution to be installed in VMware:

Dell PowerEdge R630

Figure 84 – Dell PowerEdge R630

Feature	Description
Processor	Intel Xeon E5-2670 v3 2.3GHz,30M Cache,9.60GT/s, 12C/24T
Memory	128GB Memory (8x16GB), 2133MT/s, Dual Rank, x4 Data Width
Additional Processor	Intel Xeon E5-2670 v3 2.3GHz,30M Cache,9.60GT/s, 12C/24T
Internal Controller	PERC H700 Integrated RAID Controller, 512MB Cache, x8
Hard Drives	Internal Dual SD Module with 2x 16GB SD Cards
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 750W
Network Adapter	Broadcom 5720 QP 1Gb Network Daughter Card
Host Bus Adapter	QLogic 2562, Dual Port 8Gb Optical Fibre Channel HBA, Low Profile

Figure 85 – Dell PowerEdge R630 Configuration

Fairfax Imaging is recommending three R630 servers (or similar) for the VMware infrastructure to support the *Quick* Modules solution. This recommendation will support all servers (VM) for the production, development, and test environment. A Fiber Channel SAN or 10 Gb iSCSI SAN is highly recommended to ensure the best performance for all VMs required for the *Quick* Modules solution.

The following diagram depicts the VMware physical servers (3) and storage (SAN):

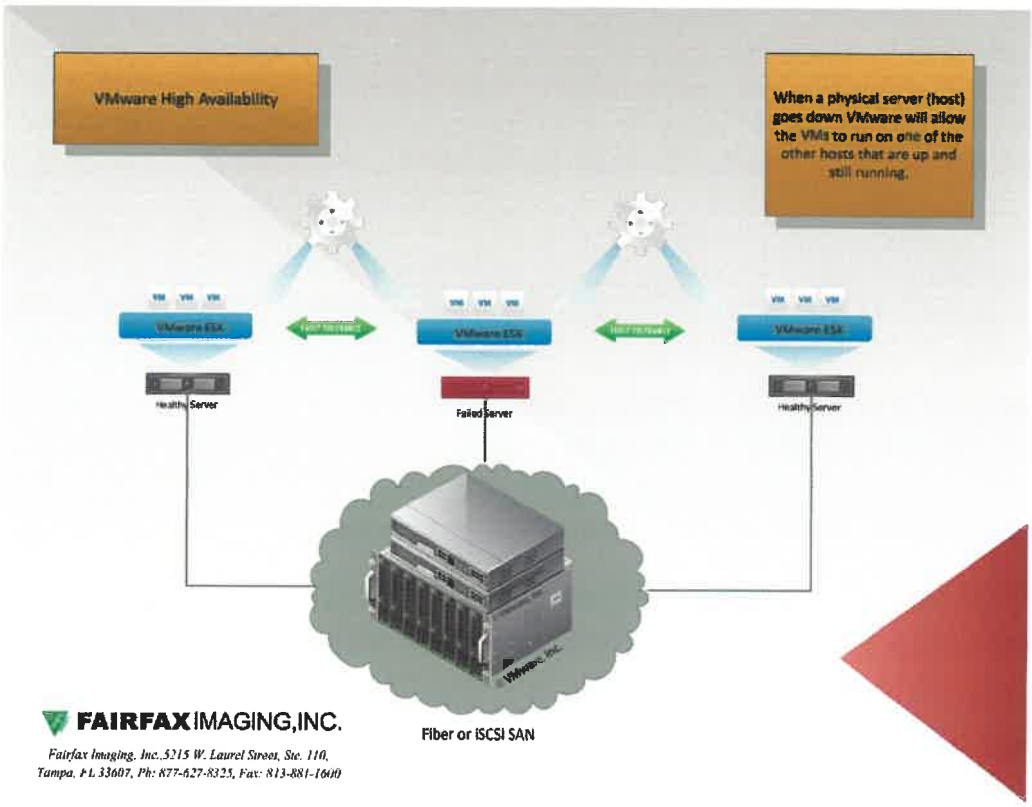

Figure 86 – Typical *Quick* Modules VMware Configuration with High-Availability

As the demand to process additional transactions in the system grows new VMs can be provisioned and deployed with additional *Quick* Modules applications to enhance performance. The recommended Dell servers include enough memory for future VMs and can also be expanded by adding additional memory.

VMware:

The *Quick* Modules system can be installed in a virtualized environment, using VMware vSphere. The system can be installed on an existing VMware infrastructure or the recommended Dell servers can be purchased to host the new virtual servers.

VMware Specs:

- SQL Server (Microsoft SQL Server 2008/2012):
  - CPU: 4 vCPU
  - Memory: 24 GB
  - NIC: 1 Gb (10 Gb recommended, 2 NICs for redundancy)
  - Disks:
    - C: (System) 40 GB
    - D: (DB) 500 GB
    - L: (Log) 200 GB

- File Server (Microsoft Windows Server 2008/2012):
  - CPU: 2 vCPU
  - Memory: 16 GB
  - NIC: 1 Gb (10 Gb recommended, 2 NICs for redundancy)
  - Disks:
    - C: (System) 40 GB
    - I: (Images) 500 GB

- Application Server (Microsoft Windows Server 2008/2012):
  - CPU: 4 vCPU
  - Memory: 16 GB
  - NIC: 1 Gb (10 Gb recommended, 2 NICs for redundancy)
  - Disks:
    - C: (System) 40 GB
    - D: (Application) 200 GB

- Web Server (Microsoft IIS Server):
  - CPU: 2 vCPU
  - Memory: 16 GB
  - NIC: 1 Gb (10 Gb recommended, 2 NICs for redundancy)
  - Disks:
    - C: (System) 40 GB
    - D: (Application) 40 GB

Storage:

We recommend the use of a SAN to store both database files and images. This is also the recommended configuration when deploying the system within a VMware environment. An example is the Dell Storage SC4020 SAN. It is an 8 Gb Fibre Channel SAN with two controllers for built-in redundancy. The 8 Gb FC SAN provides extremely fast access to the data for the servers.

Images require allocated storage space for both scanners and the *Quick* Modules system. This can be allocated on an existing enterprise level file server or dedicated file servers with access to the SAN. It is recommended that the storage for the ImageTrac scanners be located on dedicated physical hard drives in the scanner servers described below. This is due to the speed at which the

ImageTrac scanners can process the documents and save the images.

Dell Storage SC4020 all-in-one array

Figure 87 – Dell Storage SC4020 all-in-one array

Feature	Description
System	SC4020 8Gb Fibre Channel - 8ports (Single drives)
Hard Drives	Dell 480GB, SAS, 6Gb, 2.5" SSD, RI (6)
Hard Drives	Dell 900GB, SAS, 6Gb, 2.5", 10K, HDD (10)
Network Switch	Brocade 300 8-16-24 Port FC8 Switch includes 8x8Gb SFPs

Workstation Specifications:

The applications within the *Quick* Modules solution are browser-based. The resources required for the workstation are minimal:

- Intel Pentium Processor – 2.0 GHz or better
- 4-8GB RAM
- 100 GB of storage
- 100 Mbps Ethernet PCI network interface card (NIC)
- CD-ROM drive
- 19 inch or better, Digital Flat Panel Monitor
- Keyboard & mouse
- Microsoft Windows OS (7/10)
- Supported browser with Microsoft Silverlight plugin:
  a) Internet Explorer 11

Fairfax Imaging recommends the following configuration for data entry and scanning workstations:

OptiPlex 3020 Desktop (or similar)

Processors	3rd Gen Intel® Core™ i5-3470 Processor
Operating System(s)	Windows 7 Professional, No Media, 64-bit, English
Memory	8GB, NON-ECC, 1600MHZ DDR3,2DIMM
Boot Hard Drives	500GB 3.5 3.0Gb/s SATA with 16MB DataBurst Cache™
Dell Monitors	Dell Professional P2012H,Widescreen, 20in Viewable Image Size

Maintenance:

Proper maintenance of the *Quick* Modules solution is highly recommended. Regular and routine SQL database maintenance must be performed and scheduled, preferably after hours as to not impact the production system.

The *Quick* Modules solution includes a purging module called *Quick* Purge, which is used to purge images and database entries that are no longer needed or that have been archived, in order to maintain the health of the proposed system. This can be configured as an automated process that occurs periodically (i.e., once a week) or manually when initiated by the operator.

Fairfax Imaging highly recommends that WV Tax follows the recommended maintenance plan provided by Fairfax Imaging to ensure optimal performance of the system and minimum downtime that can be caused by system degradation.

ibml ImageTrac Scanner Server Requirements:

ibml requires a dedicated file server and a SQL server for storing the images. These servers must have a dedicated 1 Gigabit per second (Gbps) connection to the scanner in order to handle the volume of data and the speed at which the scanner writes to the servers.

ibml requires that the ImageTrac scanners have access to dedicated servers for storing the images temporarily and a SQL server for storing document metadata. It is highly recommended that the dedicated ImageTrac servers be local to the scanners with a 1 Gbps (Gigabit per second) network connection. At full speed, the scanner can produce a sustained network load of 24 Megabytes of data per second per scanner. This is at least twice the speed of 100 Megabits per second (Mbps), so a 1 Gbps dedicated connection is required.

Fairfax Imaging proposes the following Scanner Servers for WV Tax's ibml configuration

One (1) Dell PowerEdge R630 servers have been configured for temporary file storage

One (1) Dell PowerEdge R730 server has been configured for the SQL database server

Dell PowerEdge R630

Figure 88 – Dell PowerEdge R630

Feature	Description
Processor	Intel Xeon E5-2620 v3 2.4GHz,15M Cache,8.00GT/s, 6C/12T
Memory	32GB (4 X 8GB RDIMM, 2133MT/s, Dual Rank, x8 Data Width)
Additional Processor	Intel Xeon E5-2620 v3 2.4GHz,15M Cache,8.00GT/s, 6C/12T
Internal Controller	PERC H730P Integrated RAID Controller, 2GB Cache
Hard Drives	300GB 15K RPM SAS 6Gbps 2.5in (2)
Hard Drives	600GB 15K RPM SAS 6Gbps 2.5in (6)
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 750W
Network Adapter	Broadcom 5720 QP 1Gb Network Daughter Card

Figure 89 – Dell PowerEdge R630 Configuration

Dell PowerEdge R730

Figure 90 – Dell PowerEdge R730

Feature	Description
Processor	Intel Xeon E5-2620 v3 2.4GHz,15M Cache,8.00GT/s, 6C/12T
Memory	32GB (4 X 8GB RDIMM, 2133MT/s, Dual Rank, x8 Data Width)
Additional Processor	Intel Xeon E5-2620 v3 2.4GHz,15M Cache,8.00GT/s, 6C/12T
Internal Controller	PERC H730 Integrated RAID Controller, 1GB Cache
Hard Drives	300GB 15K RPM SAS 6Gbps 2.5in (2)
Hard Drives	600GB 15K RPM SAS 6Gbps 2.5in (10)
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 750W
Network Adapter	Broadcom 5720 QP 1Gb Network Daughter Card

Figure 91 – Dell PowerEdge R730 Configuration

Storage:

Storage for the ImageTrac scanners must be dedicated to the scanners and not shared with other applications. It is highly recommended that dedicated hard drives are allocated on the server in order to ensure adequate bandwidth to all scanners. ibml also requires a RAID 10 configuration for image storage and SQL databases.

The proposed Dell R630 and R730 servers are configured with the recommended configuration above, for both, *Quick* Modules servers and the ibml ImageTrac scanners.