2-D BARCODE
FREQUENTLY ASKED QUESTIONS
JUNE 19, 2007

State Specific Questions:

For an updated listing of states and types of tax returns 2-D barcode is used, please refer to State Survey posted on the FTA web site: http://www.taxadmin.org/fta/edi/2Dsurvey.html.

1. ***Which return types (income tax, corporate tax, etc.), did you barcode for the previous tax year(s)? If you are planning to expand 2-D barcode to other tax types for upcoming tax seasons, which tax types are you targeting?***
   Alabama: We barcoded the three individual income tax returns last tax year. This year, we added two more individual income tax forms and business privilege tax forms.
   Arizona: Income Tax; Luxury Tax-Tobacco, Bingo, and Unclaimed Property-Holder's Report
   Colorado: Colorado used barcodes on individual income tax only for tax year 2004, 2005, and again in 2006.
   Delaware: Individual and Corporate
   District of Columbia: Income tax (D-40 and FR-127), Individual Income Tax Returns and Extension. We are still looking into expanding to our Business Franchise Tax returns.
   Georgia: Individual, corporate and sales
   Idaho: Form 40 resident return. We are not planning on adding any other for this next year.
   Illinois: Currently only individual
   Indiana: For Individual Income Tax it would be Forms IT-40 (Full Year Resident), IT-40PNR (Part-Year or Nonresident), and IT-40RNR Reciprocal Nonresident). For Corporation Income Tax it would be Forms It-20 (Corporations), IT-20S (S-Corporations), and IT-65 (Partnerships). We do not plan to expand at this time.
   Kentucky: Kentucky does income tax only at this time.
   Louisiana: Individual income tax return types at this time. If we expanded our 2-D barcode to other tax types, it would be for Corporate Income & Franchise Tax, Sales, and Withholding.
   Maryland: Personal, corporation, fiduciary and pass-through entity for annual returns, estimated and extensions.
   Massachusetts: Income (mandatory) and corporate excise taxes. No plans to expand into other tax types.
   Michigan: Michigan started using 2-D barcoding for personal income tax returns for tax year 2000. We have no plans to expand to other tax types.
   Missouri: Individual Income Tax
   New Jersey: New Jersey has 2-D barcodes on their income tax (NJ-1040, NJ-1040-NR, NJ-1041) and corporate tax returns (CBT-100, CBT-100S).
   New Mexico: Income taxes, with no plans to expand to other tax return types at present.
   New York: For tax year 2006, the only 2D barcodes used were for personal income tax returns. We have no plans to expand to other tax types.
   North Dakota: IIT (ND-1) has 2-D barcode. We are looking at expanding it to other forms, particularly Sales and Use.
   Oklahoma: Oklahoma utilized 2-D on our Resident and Nonresident Individual Income Tax returns, and our Corporate income tax return> Oklahoma will not be adding 2-D to any other forms for TY 07.Income tax Individual. Will expand to corporate this year, but not till

later in the year.

Oregon: We barcode the following form types: Personal Income Tax — 40S, 40 and the WFC Schedule; Corporation Income Tax — 20, 20S and 20I

Pennsylvania: We use barcodes for our address label lookups, and some vouchers printed from the internet. The barcodes we get good percentages on but the corp jobs we tried to implement for RCT-101 returns we could only read data from 1 vendor so we never implemented it.

South Carolina: Currently we use 2D barcode on Corporate and Partnership returns. We are looking into Individual Income but not sure we have the resources to take on the project this year.

Tennessee: Tennessee approved 2-D for the fifth year for Income Tax and approved corporate tax returns for the second year. No plans to expand to new forms next year.

Utah: Income Tax received a 2D barcode for the previous year. We are not looking at expending the use of 2-D barcodes at the present time.

Virginia: No response as of May 10, 2006.

Wisconsin: Individual Income Tax for 2005 and forward. We have delayed our expansion plans.

2. *How many filings did you receive for each return type? How many of those returns were 2-D barcoded? What percentage of returns was read successfully?*

Alabama: The information listed below is only for the three individual income tax returns. Information was not available for the Form 40V, 4868A, and the Business Privilege tax forms.

    269,642 — Paper Reutnrs 16%
    386,868 — 2-D Barcode Returns 22%
  1,069,520 — E-filed Returns 62%
The read rate is unknown.

Arizona: Income Tax (paper received: hand keyed + 2D)
    2007 — 1,120,520 paper, 749,984 hand keyed, 370,536 2D (33.1% 2D) (YTD as of 5/11/07)
    2006 — 1,454,712 paper, 1,008,589 hand keyed, 446,123 2D (30.7% 2D)
    2005 — 1,496,479 paper, 1,071,775 hand keyed, 424,704 2D (28.4% 2D)
    2004 — 1,549,864 paper, 1,170,311 hand keyed,379,553 2D (24.5% 2D)
    2003 — 1,577,311 paper, 1,436,081 hand keyed, 141,230 2D (9.0% 2D)
    2002 — 1,798,688 paper, 1,682,245 hand keyed, 116,443 2D (6.5% 2D)

Colorado: 2,565,000 current and prior year returns filed, 175,000 with barcodes. 99.65%

District of Columbia: I am still researching this information.

Georgia: This information is not available at this time

Idaho: 318,254 returns received; 65,000 contained 2-D barcodes; 82-85% were read successfully

Illinois: Total Income Tax returns processed in 2005 as of 12/31/2005 is 5,809,714. We've had 2,434,732 returns sent electronically * 41.9% of the remaining paper returns, we have received 1,199,583 in 2-D barcode.

Indiana: Approximately 94% for Individual Income Tax.

Kentucky: 92,000 Individual barcode returns so far. 92%. Lowest rate since barcode inception in 2001.

Louisiana: As of May 22, 2007 we processed approximately 120,000 individual income 2-D tax return types. Read rate of approx. 97%.

Maryland: 2,113,311 paper tax forms processed in 2006. 264,658 had 2-D barcodes. 82% skiped data repair.

Massachusetts: As of 5/30/2007 here are the counts for our various filing methods:

Total Returns Processed	2,866,265	
Telefiled	141,305	
ELF	1,342,054	
Online	440,803	
2D	656,715	(Successful read rate of 96%)
Imaged (Official form)	285,312	
Conventionally Keyed	76	

Michigan: Since we only have barcoding for our PIT returns, thought I would provide data for e-file and paper PIT for comparison. As of 05/09/07:

367,013 PIT barcoded returns

2,954,422 PIT e-filed returns

1,005,565 PIT paper returns

2-D — unknown at this time; e-file — 99.79%

Missouri: Approximately 2.7 million returns received each year.

2007 *(TY 2006 as of May 30, 2007)*

E-filed: 1,549,166 to date   2-D Barcode Returns: 655,791 processed to date

2006 (TY 2005)

E-filed: 1,407,380   2-D Barcode Returns: 773,282

2-D barcode 96-97% successful read rate

New Jersey: 2004 NJ-1040 Total returns (including elf) 3.5 million

Total returns with 2-D barcodes — 413,000

2004 CBT 100/100S Total returns — 234,000

Total returns with 2-D barcodes — 81,000

No info available.

New Mexico: For PIT returns total received to date is 690,966, with 74,954 processed from 2-D bar-coded returns.

New York: For tax year 2005, we processed 9.3 million returns, of which 1.55 million were 2-D bar-code returns.

North Dakota: 52,218 total IIT returns (including prior year), 49,265 for TY2006

Oklahoma: Total paper returns processed as of May 1, 2007:   367,591

Total barcode returns processed as of May 1, 2007:   167,741**

Total filed electronically as of May 1, 2007:   806,069

**This is down from years past, but e-file continues to grow so we belive the difference is the e-file increase. Although the 2-D is on the corporate returns, we have not been reading the barcode. We will begin reading the barcode for TY 07 returns. Oklahoma processed 2-D returns with hand-held scanners this year and were able to read 98%.

Oregon: RETURN VOLUMES — FILING SEASON 2006 (January through May)

PIT

Total filed on paper —	316,836	20%
Total filed 2-D Barcode —	325,678	21%
Total filed electronically —	924,974	59%

CORP:

Total filed on paper —	32,875	78%
Total filed 2-D Barcode —	9,135	22%

92% of the barcode were read successfully.

Pennsylvania: We do not know.

South Carolina: I can give you number of returns batched to be processed as 2D. I cannot tell you the actual number processed…would require a pickoff on the mainframe and that will not happen anytime soon. I cannot tell the number received because we pulled all the CS ones out when we knew they were wrong and processed them manually.

This is what we DLNed for Barcode…

Corporate

Year	# Returns
• 2003	22,218
• 2004	26,136 (Implemented Cover Sheet)
• 2005	23,083
• 2006	25,773
• 2007	15,704 (This number will be lower this year due to vendor issue.)

Partnership

Year	# Returns
• 2004	7,648
• 2005	7,704
• 2006	10,970
• 2007	6,978 (this is thru May)

Tennessee: We consistently read above 95% on our Income Tax barcodes from all of our approved vendors. I don't have any statistics on 2-D corporate returns for this year, but we had good success on the returns that we received for last year's filings.

Utah: Income Tax returns for 2006 (12/31/06) = 1,040,783. 2D barcodes = 237,065.
          84% read rate.
        Income Tax returns for 2007 (06/10/07 = 1,037,407. 2D barcodes = 212,585.
          83% read rate.

Wisconsin: Our preliminary numbers are 26,009. We will have final numbers in mid-July.

3. *What software developers supported 2-D barcode for your state?*

Alabama: Drake Software, Intuit--Turbo Tax, Taxworks, 2nd Story, ATX, CCH, Creative Solutions, Deloitte, H & R Block, Jackson Hewitt Tax Service, Intuit, LaCerte, Orrtax, Petz, Tax Slayer, STF Services, Tax Wise, Data Group, RIA, TaxSimple, Inc., Vertex, EZTax, Tax Hawk, Inc., Taxware Systems, Wolters Kluwer, Liberty Tax Service and Taxsation, Inc.

Arizona: CCH, Inc., Creative Solutions, Drake Enterprises, H & R Block, Intuit, Petz Enterprises, Inc. STF Service Corp., Taxworks by Laser Systems, Tax Simple, Inc., On-Line Taxes, and Wolters Kluwer

Colorado: Creative Solutions, Drake, H&R Block, CCH, Petz Enterprises, Tax Simple an Wolters Kluwer

District of Columbia: ATX Forms, Creative Solutions, Drake Enterprises, H & R Block, STF Services Corp, Petz Enterprises, Wolters Kluwer

Georgia: Drake, STF, Creative Solutions, Intuit, Petz Enterprise, Second Story, CCH, H&R Block, Rhodes Computer Services

Idaho: STF Services, Intuit, 2nd Story, Creative Solutions, Drake, Petz, H&R Block, CCH, Liberty tax service

Illinois:

Indiana: Intuit, H&R Block, Drake Enterprises, CCH, Creative Solutions, Petz, TaxWorks, and TaxStation (Corporation Tax only).

Kentucky: 12 vendors: 2nd Story / CCH / Creative Solutions / Drake / Dunphy / H&R Block / Intuit / On-line Taxes / Petz / RCS / STF / Taxworks

Louisiana: Drake, Creative Solutions, H&R Block, STF and CCH.

Maryland: Taxworks, CCH, Petz, H&R Block, Drake, STF, Creative Solutions, Second Story, Wolters Kluwer, and Taxsation.

Massachusetts: For TY2006 - 2nd Story Software, ATX Forms, Block Financial, CCH, Creative Solutions, Drake Software, Dunphy Systems, H&R Block, Intuit, Jackson Hewitt, Lacerte Software, Online Taxes, Orrtax, Petz Enterprises, RIA Forms, STF Services, Tax$imple, TaxSlayer, Taxware Systems, Taxworks, Universal Tax Systems

Michigan: For the 2006 tax year, the following developers have tested 2-D products: 2nd Story, CCH, Creative Solutions, Drake Software, H & R Block, Intuit, Petz Enterprises, STF Service Corp, and TaxWorks.

Missouri: CCH, Creative Solutions, Drake, H&R Block, Intuit, Petz Enterprises, RCS Taxslayer, RIA, Second Story Software, STF Services, Corp., Tax Simple, and Taxworks.

New Jersey: For income tax:

For income tax:	For corporation tax:
CCH	CCH
Creative Solutions	Creative Solutions
Drake	Drake
STF	STF
Dunphy	TaxSation
H&R Block	
Petz Enterprises	
TaxWorks	

New Mexico: CCH, Inc., Creative Solutions, Drake Software, Dunphy Systems, Inc., H&R Block, Intuit, Petz Enterprises, Inc., RCS/Taxslayer, STF Services, TaxAct by Second Story Software, Taxware Systems, and TaxWorks.

New York: For tax year 2006, 2-D was supported by CCH, H&R Block, Creative Solutions, Intuit — TurboTax, Intuit — Lacerte, Petz, Taxworks, RIA, and Drake.

North Dakota: 2nd Story, Creative Solutions, Drake, H&R Block, Intuit, Petz, Taxworks, CCH, STF

Oklahoma: Oklahoma 2-D was supported by H&R Block, Intuit, CCH, Petz Enterprises, Taxworks, Drake, Creative Solutions, Rhodes Computer, STF Services, Second Story Software, Taxware Systems, Wolters Kluwer, On-Line Taxes.

Oregon: PIT: CCH, Creative Solutions, Drake, H&R Block, Intuit, Lacerte, Petz, RIA, ATX, Block Financial, STF, Taxslayer, Taxworks, Jackson Hewitt, Lamson, Liberty Tax, On-Line Taxes, Orrtax, Second Story, Tax Simple, Taxware, Tax Hawk, Taxwise, Wolters Kluwer.
Corporations: Creative Solutions, Drake, STF, Taxworks, Wolters Kluwer

Pennsylvania: Tax Works, Taxsation, Inc., Creative Solutions.

South Carolina: **Corporate** — CCH ProSystem, Creative Solutions, Drake Software, STF Services Corp, TaxSaction Inc, TaxWorks, Wolters Kluwer
Partnership — CreativeSolutions, Drake Software, STF Services, TaxWorks, Wolters Kluwer

Tennessee: For Income, we approved software for CCH (two packages), Creative Solutions, Drake, H&R Block, and Liberty Tax Services. For corporate, we approved Drake this year.

Utah: H & R Block, Creative Solutions, STF, Tax Works - Laser Systems, Drake Software, Petz Enterprises, 2nd Story Software, CCH, Wolters Kluwer, Intuit, Liberty Tax Service, ATX Forms, RIA, Lacerte, Universal Tax Systems, RCS/TaxSlayer, Jackson Hewitt, Tax$imple, Orr Tax

Wisconsin: CCH, Creative Solutions, H&R Block, Second Story, Drake, and WKF

4. ***What scanner type are you using (wand, stationary mount, desktop, high-speed scanner)? Do you plan on changing scanners in the future?***

Alabama: We use an outside vendor that is using high-speed scanners along with their imaging equipment.

Arizona: Wand Hand (Symbol Technologies M2007-I400) No.

Colorado: Colorado is currently using wand scanners in stationary mount stands.

District of Columbia: We are currently using a hand held wand on some low volume applications associated with our new Baseball Stadium taxes. Our primary system will be an image system with a software scanner/reader.

Georgia: High-Speed

Idaho: Wand, although we could mount it but the hand held worked better.
Illinois:
Indiana: Wand and Stationary Mount types.   Not at this time.
Kentucky: N/A
Louisiana: LA Department of Revenue/Revenue Processing Center is only using high seed scanners at this time. We do not know at this time if we plan on changing scanners in the future.
Maryland: High speed scanners and we plan on continue to use them.
Massachusetts: High speed. No plans to change.
Michigan: Michigan uses the Symbology hand-held scanner model P304PRO. We do not have plans to change scanners in the future. The scanner rests in a desktop stand.
Missouri: Symbol's LS6800 fixed mount scanners. Don't plan on changing.
New Jersey: High speed scanners and there are no plans for changes.
New Mexico: High-speed scanners, with no plans to change scanners in the future.
New York: We do not release information about the specific technical products used in our tax processing systems.
North Dakota: Hand held Symbol scanner. No plans to change
Oklahoma: Oklahoma has a vendor who processed our returns through software last year. Due to problems this year, Oklahoma processed all 2-D using hand-held scanners. We are installing our own imaging system and for Tax Year 07 we will image the return and read the barcode from the imaging using software.
Oregon: We use hand-held wand scanners. We are looking into implementing high speed scanner in the future that will allow us to image the returns as well as read the barcodes.
Pennsylvania: High speed scanners, no plans to purchase any scanners.
South Carolina: Wand, Possibly change to high speed scanners in the future.
Tennessee: Tennessee uses a ScanOptics 9000 which is a belt-driven, automated scanner that can handle multiple form types within a batch. It processes both 2-D barcoded returns and OCR scanning; fields that OCR cannot read have video automatically appear on an operator's screen and keyed from the image. No plans to change.
Utah: Scan Optics SO Series high-speed scanner.
Wisconsin: High-speed Kodak scanners.

5. *If you use an integrator, which integrator did you use? Do you plan to use an integrator in the future?*
Arizona: Self- integrating.
Colorado: Colorado used Peak Technologies to develop our capture software.
District of Columbia: We used Fairfax Imaging. We will be using them in the future.
Georgia: N/A
Idaho: No
Illinois:
Indiana: Indiana used an outside source in creating the barcode integration (AccessIndiana).   No
Kentucky: N/A
Louisiana: No
Maryland: IBM
Massachusetts: No and no plans to change.
Michigan: No, the software was developed and installed by Unisys.
Missouri: Self-integrated.
New Jersey: Northrop Grumman
New Mexico: No, no plans to use an integrator in the future.
New York: No, no plans to use an integrator in the future.
North Dakota:

Oklahoma: Oklahoma is using Fairfax Software to drive our imaging system. One of the modules in this software will read the barcode.

Oregon: No, but we are looking into it for the future.

Pennsylvania: No

Tennessee: No and no

Utah: None

Wisconsin: IBM IFP is our integrator. This will continue.

6. *If your agency programmed for 2-D in-house, how long did it take to write the program? How many programmers worked on the project?*

Alabama: We use an outside vendor.

Arizona: Initial Implementation 830 Hrs total (350 Hrs COBOL/JCL; 480 Hrs SQL/VB); Annual Updates 160 hours total. Initial Implementation — 2 programmers; Annual Updates — 1 programmer

Colorado: The data storage, mapping and extraction programs were written in house. We had one programmer spend about 200 hours the first year developing the system, and also had time spent by our DBA group. We spend 40-80 hours in annual system updates and maintenance.

District of Columbia: We used Ultraforms to imbed 2-D generating software into a PDF. Ultraforms representatives also developed a simple data base program to store data on forms filed. All of this was part of the fee for their software.

Georgia:

Idaho: 1 Programmer, and he did not keep track of the hours

Illinois: Length to write unsure, was coded by 1 programmer.

Indiana: Indiana has new resources within our IT Group and those who were present at the time of development are no longer here. So, we cannot provide you with a response to this question at this time.

Kentucky: N/A

Louisiana: It took approximately three to four months to write the program in house. Two programmers worked on this project.

Maryland: We do not program 2-D barcodes in-house.

Massachusetts: From analysis and design through to production was about 4 months requiring 3 programmers and a programmer/analyst. These individuals were not working exclusively on 2D barcoding at that time. See previous response.

Michigan: N/A

Missouri: First year the programming took approximately 410 hours. Other years programming was approximately 264 hours. (This also included testing.)

New Jersey: No

New Mexico: 1 programmer for 120 hours. 50% of the time was spent on programming for identification and processing of a 2D Barcode read failure.

New York: Our third party processor handles 2-D returns.

North Dakota: We had a third party program it for TY2001 and since then we have maintained it.

Oklahoma: We had to pull our 2-D from our vendor last year and write a new in-house program. It took 2 programmers about 10 hours to write, test and put it in production.

Oregon: a. Staff hours to develop 2-D program?   6 months
  b. Staff hours to implement 2-D program?   2080 hours
  c. Of the hours above, how many were overtime?   Minor amount
  d. 1 programmer to write the initial program. Secondary programmer was added as a backup as we expanded to additional programs.

Pennsylvania: We use Formware software that reads barcode data, we do not have to develop a pro-

gram in-house.

South Carolina: 2 Months, 1 ½ Programmers

Tennessee: The camera that reads the barcode and the output was part of a scanner upgrade. Our programmers (2) took the output, created a file from it to match our keying program, and creating an input file for our tax system. Our income barcode was not a significant programming effort once the process was established; however, our corporate capture was very involved due to the number of fields and multiple barcodes (six barcodes and approximately 300 fields).

Utah:

Wisconsin: Two programmers at 30% each from October through January.

7. *Did you experience any problems with 2-D barcode returns? If so, please explain.*

Alabama: Some returns did not have the same information in the barcode that was printed on the return.

Arizona: PY2007 — Smudged/Smeared Barcode Symbol - About 80% of the unreadable 2D returns for Arizona are attributed to smudged/smeared. Arizona has a 95% successful scan rate, so… if we were able to reduce the number of errors due to smudged or smeared barcode, our scan rate would be phenomenal!

I wonder how other states are doing regarding smudged or smeared 2D symbols? Do other states track their 2D statistics? If so, how many unscannable 2D barcode returns do they attribute to a smudged or smeared condition? If they have a really low percentage of unscannable barcoded returns due to a smudged or smeared condition, what factor(s) contribute to the low percentage? (AZDOR uses Symbol Technology Model M2007-I400 Cyclone handheld scanners for 2D barcode scanning).

Colorado: No major problems experienced.

District of Columbia: No problems noted.

Georgia: A few software vendors transposed some amount fields or left key fields blank. Poor print quality making readability difficult.

Idaho: Noticed that some barcode read better than other's but we also realize that all taxpayers have different types of printers.

Illinois: Yes, missing form codes, missing and incorrect bar code information.

Indiana: Yes. Indiana wants to capture the W-2 Detail information in the 2-D barcode. This way our Processing System can total the W-2 data to verify if the amount being claimed on the tax return itself equals what is shown on the W-2 Forms. We cannot get the software companies to require that the W-2 data be present prior to the return being printed and mailed into the Department.

Kentucky: Different versions of the barcode placed in different packages for the same vendor. A major hiccup on the vendor's part. Will test all software packages for the same vendor due to this error. Cost way too many man-hours to correct the barcodes.

Louisiana: No problems noted.

Maryland: No major problems experienced.

Massachusetts: Besides print quality as a result of printer issues, which caused the 2D to not be read, there is the issue of 2D encoded data not matching the Printed data. There are two flavors of the problem. The easy to spot are where someone hand wrote data on the return (both additional data or changes to data) that would not be found in the 2D. These are manually screened and processed (and counted) as an "Imaged" return. The most troubling are the cases where the 2D has data that does not match the data which is printed on the form. These have been caught in one of the steps of our multi-step validation process.

Michigan: Originally the percentage of non-readable barcodes was higher than we expected. The readability problems improve somewhat over time. Readability improved markedly when we started using a 2-D barcode coversheet.

Missouri: Poor printing or photocopying; some returns didn't have the same information in barcode that was printed on the return. We had one vendor that did not default the barcode to on.

New Jersey: No

New Mexico: Yes. Tax preparers and taxpayers changing the numbers on the paper return, (the bar code was not updated); Data within fields auto-populating into an incorrect field within the barcode, but not printed on the return; Data within fields not being populated within the 2-D barcode; Repeat of an error within the 2-D barcode that was seen during the testing phase; 2-D barcodes not being read, and 2-D barcodes not being printed on the form properly.

New York: Minor problems with incorrect 2-D placements on the coversheet and conflicts with our edit rules (e.g., missing attachments based upon barcode entries).

North Dakota: Vendors did not ship product with default turned on. They shipped the product before the 2-D barcode was approved, so we did receive filings from our approved vendors w/o 2-D barcodes even though they had been approved.

Oklahoma: Oklahoma had a few problems with barcodes this year. We had one developer who did not parpulate the barcode for a certain filing status.

Oregon: No

Pennsylvania: YES, we could only read data from one vendor.

South Carolina: One problem this year with a vendor (after approval) sent out copy of wrong software to their customers that included wrong tax year and we had to pull out these returns to handle manually. They did sent out message to their customers asking them to get the correct copy or contact them but that is all they could do.

Tennessee: The Income Tax return was not a hard application for us with a non-payroll tax that has a limited number of fields. The corporate was more complicated with multiple barcodes on a coversheet. We use the standard header for all our barcodes, and we broke out corporate barcodes by schedules; however, not all the schedules are either used by an one taxpayer and some companies don't support all our schedules. After ironing out several rough spots the first year (a suggestion from another state led us to require that all fields in all barcodes that a software company did not support be filled with zeros if no true input was available, and our program worked), the programming aspects were cleaner, but several late changes to the return slowed finalizing.

Utah: There were changes in the software after testing or problems that were not detected during testing, we had to work to fix.

Wisconsin: One vendor with x and y coordinate problems. We also had issues with cents and no cents from another vendor.

8. ***Does your agency know how much it costs (per item) to capture data manually vs. 2-D barcode?***

Alabama: This is based upon return type.

Arizona: Arizona's latest cost projection for Manual data entry is $3.15; 2D scan is $2.65 (50¢ savings).

Colorado: Scanning barcoded returns costs about $0.15/ return vs. average data entry costs of $0.45/ return.

District of Columbia: Not at this point.

Georgia: ?

Idaho: $3.00

Illinois: Numbers no longer available.

Indiana: Manual data capture returns: $1.06 per return, Barcode data capture returns: $0.35 per return.

Kentucky:

Louisiana: We do not know specifically how much it costs to capture data manually vs. 2-D barcode, but we do know that it costs approximately $.93 to process all documents.

Maryland: Our savings come to about 17 cents per return using 2-D.

Massachusetts: Processing costs are unknown.

Michigan: It takes 8 times longer to process paper returns without a barcode compared to paper returns with a barcode.

Missouri: DOR estimates that it costs 86 cents per return to manually process from start to finish. For each return that is scanned, there is a savings of more than 57 cents (it costs approximately 29 cents to scan a return).

New Jersey: We estimate that we save 1.11 for each 2-D return processed.

New Mexico: The costs have not been determined yet for this year.

New York: The Department reimburses its third party processor based upon return type, not data capture mechanism.

North Dakota: We believe we save 1 minute per return in data entry. This comes out to 916 data entry hours or $6641 in savings.

Oklahoma: In previous cost analysis we found we can process a barcode return for less than 25 cents a return vs 82 cents per return to key.

Oregon: Manually cost per return $4.03; 2-D $2.70 ($1.33 saving per return)

Pennsylvania: We do not know.

South Carolina: Approximate costs based on employee salaries and overhead from mail opening through data entry.
Corporate — Manual 23 cents; Corporate — Barcode 16 cents (We capture a lot more data through the barcode process than we do through the manual process.)
Partnership — Manual 12 cents; Partnership — Barcode 8 cents

Tennessee: Not at this time.

Utah: No

Wisconsin: 30 cents savings per return estimated.

9.   *What made you decide to implement 2-D barcode?*

Alabama: It enables us to process paper returns faster and with a higher accuracy rate.

Arizona: Alternative data capture of paper returns.   Arizona estimates that 20–40% of population will not be serviced by e-file.

Colorado: Reducing data entry costs, increasing data capture accuracy and increasing processing throughput.

District of Columbia: The efficiency of 2-D barcode reading and the convenience of 2-D barcodes in fill-in pdf forms.

Georgia: To give taxpayers another option other than efile and to have another way to input information other than manually.

Idaho: Faster way of processing income tax returns, knowing that it is very unlikely that we would get 100% e-filed.

Illinois: Cost and time effective.

Indiana: Indiana was the first state to implement 2-D Barcode. Our Commissioner determined that it would be a method that would speed up the processing of a paper return and could be considered a stepping stone for taxpayers to go from paper returns to electronic returns.

Kentucky: To make the paper process easier.

Louisiana: A 2-D document provides a cleaner, quicker return. It also requires less manual intervention as well as it is cheaper and requires less people to handle the returns.

Maryland: As a cost savings.

Massachusetts: Quick, clean and efficient data gathering/return processing with little to no human intervention involved. Data gathered from the 2-D barcode went into the electronic data stream, therefore further expediting the processing of paper returns. Just a better way to process paper returns while the taxpaying public slowly but surely embraces the concept/reality of electronic filing.

Michigan: 2-D enables us to process paper returns faster and with a higher accuracy rate.

Missouri: We wanted to process the returns faster with fewer errors.

New Jersey: Cost savings, speed and accuracy.

New Mexico: The desire to increase efficient capture of data from forms.

New York: The primary consideration was the ability to efficiently capture all data entry fields on the 2-D returns (comparable to e-file returns). This is being evaluated in light of the growth of the e-file program.

North Dakota: It saves time in data entry. It is the next best thing to e-file.

Oklahoma: Budget constraints over the last 4 years impacted the way we processed. We had to find ways to process quickly, and accurately without using extra personnel or overtime. Barcode allowed us to do that.

Oregon: The efficiencies gained by:
- Minimizing the manually data entry
- Faster processing of returns for customers

Pennsylvania: Better accuracy, timesaving if it works.

South Carolina: Capture more data from Schedules.

Tennessee: Income Tax was the first four years ago, but the true benefit was seen in corporate where we have up to 300 fields that were being manually keyed.

Utah: Able to reduce processing expense, resources, and time.

Wisconsin: Wisconsin is not in the FreeFile Alliance. We want to improve our efficiency when we scan paper for data capture as many taxpayers print their returns to avoid paying additional amounts to efile in our state.

10. *How many 2-D barcode scanners do you currently have?*

Alabama: We use an outside vendor that is using high-speed scanners along with their imaging equipment that reads the barcode and captures the data vendor developed software.

Arizona: 19

Colorado: Six (6)

District of Columbia: We have four (4), three (3) for production, and one (1) for our developers.

Georgia: Five

Idaho: Three scanners are available

Illinois: 15 scanners.

Indiana: 32 (20 used full time for 2-D Barcode returns and 12 used as/for back-up and other scanner applications).

Kentucky: We use an outside vendor to scan the barcode.

Louisiana: Two high speed scanners.

Maryland: Three

Massachusetts: 3 high speed scanners

Michigan: We have 10 scanners and on average 5 staff persons scanning on a daily basis.

Missouri: 30

New Jersey: Nine

New Mexico: Three

New York: We do not release information about the specific technical products used in our tax processing systems.

North Dakota: 2

Oklahoma: Oklahoma will utilize two IBML transports for scanning and read the barcode from the image using software. We have 10 hand-held scanners for back-up processing if needed.

Oregon: 11

Pennsylvania: We do not read the barcode at the scanner we have software that does this.

South Carolina: Three

Tennessee: We have five automated scanners, but only one outfitted to process 2-D; however, the automated processing capability can handle a large volume.

Utah: Four

Wisconsin: We have 10 scanners, but they are used for all tax types.

11. *Does your state capture information in the 2-D barcode from Form W-2s?*

Alabama: No

Arizona: Yes, but limited (four fields): Employer ID, Employees SSN, Arizona Wages, and Arizona Withholding

Colorado: Yes

District of Columbia: No

Georgia: No

Idaho: No

Illinois: Yes

Indiana: Yes

Kentucky: Yes. We capture FEIN, Company Name and the state lines.

Louisiana: No

Maryland: No

Massachusetts: Not directly. W-2 information (as well as 1099 information) is gathered/displayed on a separate schedule (MA Schedule INC) that possesses its own 2-D barcode. The desired information is gathered from this particular 2-D barcode.

Michigan: Yes. Michigan captures the FEIN, SSN, wages, state withholdings, and city withholdings for up to 8 W-2s. Additionally, Michigan captures up to 2 state codes for the first 6 W-2s.

Missouri: No

New Jersey: No

New Mexico: No

New York: Starting in TY 2005, we are using Form IT-2 in place of the W-2. However, it is anticipated that will continue to capture W-2 data if this form is attached to the return.

North Dakota: Yes and we capture W-2Gs and 1099s

Oklahoma: No

Oregon: Yes

Pennsylvania: We don't think so at this time.

South Carolina: No

Tennessee: No

Utah: Yes

Wisconsin: No W-2 data capture now, but we plan to expand some day in the future. Other data elements interest us, too.

12. *Does your state use Macro PDF? If so, can you explain your experiences with Macro PDF?*

Alabama: No

Arizona: No, N/A

Colorado: No

District of Columbia: No

Georgia: No

Idaho: No
Illinois:
Indiana: Not at this time. No plans at this time.
Kentucky:
Louisiana: No
Maryland: N/A
Massachusetts: No. N/A
Michigan: No.
Missouri: No
New Jersey: No
New Mexico: No
New York: We do not release information about the specific technical products used in our tax processing systems.
North Dakota: No
Oklahoma: No, but we will be looking at it for our corporate returns.
Oregon: No
Pennsylvania: No
South Carolina: No
Tennessee: No
Utah: No
Wisconsin: No, macro PDF

13. *How many test returns does your state require for 2-D barcode? (example: five different test returns-one copy of each submitted for approval)*
    Alabama: Three to five different test returns submitted for approval.
    Arizona: 10 different test returns, to test the five types of income tax returns.
    Colorado: Colorado uses the same 10 returns for testing 2-D that we use for Fed/State Electronic Filing testing.
    District of Columbia: We require 2 copies of each form with simulated taxpayer data.
    Georgia: Five different test, one copy of each.
    Idaho: Five examples
    Illinois:
    Indiana: Indiana usually does 20 Individual Income Tax Tests (5 returns for each form type - IT-40, IT-40EZ, IT-40PNR, and IT-40RNR).
    Kentucky: 9 returns. Same as PATS testing.
    Louisiana: 5 different resident and 5 different non resident test returns and 1 copy of each.
    Maryland: 2 copies each of 4 different test returns for each form.
    Massachusetts: For Income tax returns, we require 2 test returns (1 for resident and 1 for non-resident as supported by the respective vendor). For Corporate Excise tax returns, we require 3 test returns (1 for each corporate excise return supported by the respective vendor).
    Michigan: Michigan has 12 test returns for 2-D. To be approved, a developer may either: (1) Submit all 12, one copy of each, or (2) Submit 5 specific tests (5, 7, 8, 9, and 10), one copy of each.
    Missouri: Five test returns for the long form and three test returns for each of the short forms.
    New Jersey: We require 5 test returns for income tax and 3 for the corporate tax.
    New Mexico: Five test returns.
    New York: For TY 2005 five Test Cases were prepared for the software vendors to follow. We are evaluating changes to the test process and inform the software companies prior to the start of the next tax season.
    North Dakota: Eight different scenarios, each testing different forms.

Oklahoma: Oklahoma requires 5 different test returns which meet criteria set by the OTC.
Oregon: Five different test returns per form type
Pennsylvania: At least 5 returns per vendor.
South Carolina: For Corporate we use 3 SC1120T and 3 SC1120 samples. For Partnership we use 5 samples for Partnership. If the return does not change like Partnership the company does not have to test as long as they don't changes their software. We ask them to let us know they plan to participate.
Tennessee: We provide 5 scenarios for the Franchise/Excise tax returns with one copy generated for each. We have been using only 3 for Income with one copy generated for each. Each scenario usually present a little different twist, so each must pass inspection.
Utah: Ten different test returns are required.
Wisconsin: One test return for each document type

14. ***Does your state have a separate P.O. Box for 2-D barcode?***
Alabama: No
Arizona: Yes
Colorado: No
District of Columbia: No, but we are considering this for the future.
Georgia: Only for individual.
Idaho: No
Illinois: No
Indiana: Yes
Kentucky: No
Louisiana: No
Maryland: No
Massachusetts: Yes, we actually have 2 separate P.O. boxes for 2-D barcoded income tax returns (1 box for refund returns and 1 box for payment returns). 2-D barcoded corporate excise tax returns are combined with non-2-D barcoded corporate excise tax returns and are sent to the same PO box for processing.
Michigan: Michigan has a PO Box for all computer generated returns, with or without a barcode.
Missouri: Yes
New Jersey: No
New Mexico: No
New York: No
North Dakota: No
Oklahoma: Yes
Oregon: Yes, for Personal Income Tax. No, for Corporation Tax
Pennsylvania: No
South Carolina: No
Tennessee: No
Utah: No
Wisconsin: No

15. ***Does your state have a deadline for submitting test returns for 2-D barcode?***
Alabama: Preferably before the software package is released.
Arizona: No, but if developer wants to be ready for January 2nd, we encourage them to submit test returns early enough to complete testing by January 1st.
Colorado: Yes, the deadline is January 11.
District of Columbia: No
Georgia: Yes

Idaho: No, but we do encourage all testing to be done in early January.

Illinois: No

Indiana: Yes

Kentucky: No deadline, but preferably before the software package is released.

Louisiana: Mid January

Maryland: We have a Dec. 15 deadline for all forms approval.

Massachusetts: No

Michigan: Michigan generally starts testing in November for the current tax year and does not close testing until September 20th of the following year.

Missouri: Yes. Two months after I release the 2-D barcode specifications, which are released by October 1.

New Jersey: New Jersey's deadline for any test samples is March 15th.

New Mexico: Yes, the end of December.

New York: Yes — the deadline is announced every year to software companies.

North Dakota: No

Oklahoma: No

Oregon: Yes, February is out cut off for testing. However, we will allow testing during season for new software products if resources are available.

Pennsylvania: We don't think so at this time.

South Carolina: No

Tennessee: No, at least not a hard deadline. We try to work with companies as long as they still feel that if is beneficial for them to obtain approval - it is to our advantage to work with them.

Utah: No

Wisconsin: We'd like test forms by December 1st, but recognize that we must get our forms out earlier, too.

16. *Are the test returns created by your state created using PDF files? (Do you create the test returns and fill in the information in a PDF file for the software developers to use for test returns?)*

Alabama: No, we find that using the same test cases for both 2-D barcode and ELF returns seem to be the best solution for us and the software developers.

Arizona: Yes

Colorado: No. We attempted to do this in the past, but with limited form development staff we aren't able to turn around the tests fast enough to be useful. Using the same test cases for both barcode and ELF returns seems to be the best solution for us and most software developers.

District of Columbia: No

Georgia: Yes, yes

Idaho: Yes

Illinois: Yes

Indiana: Yes

Kentucky: Yes

Louisiana: We use PDF files; however, we don't fill in the test information.

Maryland: Not at this time

Massachusetts: Yes. Yes

Michigan: Yes

Missouri: Yes, we use PDF files and we supply the data.

New Jersey: No the test returns are on a spreadsheet and posted on our website.

New Mexico: No

New York: We have used PDF files on a limited basis. We are investigating the possibility of expanding PDF submissions for the next tax season.

North Dakota: Yes

Oklahoma: No. we provide test criteria and the developers are expected to incorporate that information at a minimum. They can add additional data if they choose.

Oregon: Yes

Pennsylvania: No

South Carolina: Yes, Yes

Tennessee: We use PDFs for the line-by-line data as well as using a test data sheet for the account/registration information such as name, address, period covered, and account #.

Utah: Yes

Wisconsin: No, PDF files are not used.

17. *Does your state notice any difference for processing the different types of 2-D barcodes the software developers produce? (Example: Version 1. is a taller, not so wide version of 2-D barcode; and Version 2. is a longer (wider), but shorter (not so tall) version of 2-D barcode)*

Alabama: Yes, it has been an issue when the barcode is very large and appeared to be too large for the allotted space.

Arizona: Yes. Taller, almost square barcodes (almost a 1:1 aspect ratio) on returns from one vendor's software seem to scan faster than longer/wider barcodes (2:1, 2.5:1 ratio) created by other software developers.

Colorado: Yes — we do see some variability. It has only been an issue when the barcode was very large and looked like it could become too large for the allotted space.

District of Columbia: No

Georgia: Yes

Idaho: This was noticed last year, but have not had the problem this year.

Illinois: No

Indiana: Indiana notices some differences between a few of the software vendors, but for the most part, the bar codes are pretty much similar.

Kentucky: No difference that I know of regarding scan ability.

Louisiana: No

Maryland: As long as they have an X dimension of at least 15 mils we haven't noticed a different.

Massachusetts: No

Michigan: No

Missouri: Not really

New Jersey: As long as the specifications are followed for the x/y coordinates we don't have any problems.

New Mexico: No

New York: We can process any 2-D barcode that meets our specifications.

North Dakota: Both sizes work well

Oklahoma: Not really. I have been told the 2x1 ratio reads best, but we have not had any problems that would stop a read because of the size of the barcode.

Oregon: Yes, the taller version takes longer to read using our hand held scanners.

Pennsylvania: YES. We can read barcodes from our vendor that produces a barcode for our address labels. Software vendors we can tell the pixels are different and we only got readable data from one vendor the others we do not know why we could not read the barcode.

South Carolina: No

Tennessee: Yes, different companies' barcodes are not all the same size. We have requested a specific mil and test each.

Utah: Yes, depending on how data such as vendor code is placed on the form.

Wisconsin: N/A

18. ***Does your state have an internet 2-D barcode program implemented? (Does your state have files posted on your web site that contain a 2-D barcode when printed?)***

Alabama: Yes, we use DataIntro's UltraForms. We have fillable, calculating individual resident and nonresident forms. We also use the 2-D barcode on our individual income tax voucher and individual extension forms.

Arizona: Yes

Colorado: No

District of Columbia: No, but we are working on one.

Georgia: Yes

Idaho: No

Illinois: Yes

Indiana: Indiana did have the 2-D barcode included with it's Internet Filing Program (I-File). However, 99% of the population using the I-File program elected to file electronically rather than by 2-D barcode, so we did away with the 2-D Barcode portion of the I-File program.

Kentucky: No

Louisiana: We currently do not have an internet 2-D barcode program implemented.

Maryland: Yes

Massachusetts: No. No

Michigan: No

Missouri: Yes, Missouri uses Data Intro's UltraForm software.

New Jersey: No

New Mexico: No

New York: No

North Dakota: Currently we don't due to the cost, but we are working on a plan to make this happen.

Oklahoma: Yes, we have a fill-in calculating individual resident and nonresident returns, as well as the 512 return that create a barcode when printed. We use DataIntro, Ultra Form software to provide this option.

Oregon: No

Pennsylvania: Only payment vouchers.

South Carolina: No

Tennessee: No; it has been discussed but no plans to implement any at this time.

Utah: No

Wisconsin: N/A

19. ***Please list the 2-D barcode contact for your state. (Name, address, phone, email address)***

Alabama: **For 2-D Barcode content:** Deborah.Henley@revenue.alabama.gov
For Forms Approval: jayne.stinson@revenue.alabama.gov
Alabama Department of Revenue
Individual and Corporate Tax Division
Attn: Jayne M. Stinson
Gordon Persons Bldg., Room #4214
50 N. Ripley St.
Montgomery, Alabama 36104
Note: Both the **2-D** and **forms** approval are done separately.

Arizona:

Program Administrator	**Program Manager**
Donna Muccilli	Alven Brite
Arizona Department of Revenue	Arizona Department of Revenue
1600 W Monroe St, Suite 100	1600 W Monroe St, Suite 100
Phoenix, AZ 85007	Phoenix, AZ 85007
(602) 716-6513	(602) 716-6912

dmuccilli@azdor.gov   abrite@azdor.gov

Colorado: Julie Roybal, Colorado Department of Revenue, 1375 Sherman St., #338, Denver, CO
        80261; 303-866-5060; jroybal@spike.dor.state.co.us
        Antoinette Williams, 1375 Sherman Street, Room 305, Denver CO 80261; 303-866-2722;
        303-866-3702 fax; awilliams@spike.dor.state.co.us

District of Columbia: Paulette Gooden, Program Analyst   or   George Conly, Systems Analyst
        Paulette.gooden@dc.gov   george.conly@dc.gov
        202-442-6262   202-442-6313
        DC Office of Tax and Revenue
        941 North Capitol Street, NE
        Washington, DC 20002

Georgia: Cynthia Johnson, Processing Center, 1200 Tradeport Blvd, Atlanta, GA 30354; 404-362-
        2741; cynthia.johnson@dor.ga.gov

Idaho: Dawn Glazier, 800 Park Blvd, Plaza IV, Boise, Idaho 83705; 208-334-7822;
        dglazier@tax.idaho.gov

Illinois: John Ryan

Indiana: For Development and Testing issues: Charles Harris—IGCN286, 100 N Senate Ave,
        Indianapolis, IN 46204-2253, (317)233-1453, charris@dor.in.gov. For Tax related issues
        about the Testing and general information: Bill Dunbar—Logan Bldg, 100 N Senate Ave,
        Indianapolis, IN 46204-2253, (317)615-2508, bldunbar@dor.in/gov.

Kentucky: Marcus Deaton II, 200 Fair Oaks Lane, Station 68, Frankfort, KY 40601; 502-564-4581
        Ext 4621; Marcus.Deaton@ky.gov

Louisiana: Jeannie Rasmussen, 617 N. Third St. Baton Rouge, LA 70802,
        jeannie.rasmussen@la.gov; (225) 219-2760.

Maryland: Lewis Koenig, 110 Carroll St., Annapolis, MD 21411; 410-260-7442;
        lkoenig@comp.state.md.us

Massachusetts: Russ Carr - Massachusetts Department of Revenue, 200 Arlington Street, Chelsea,
        MA 02150; (617) 887-5627; carrrt@dor.state.ma.us

Michigan: Robert Carter or Mark Chambers, Alternative Filing Programs Office, Michigan
        Department of Treasury, 430 West Allegan Street, Lansing, MI 48922; (517) 636-4450;
        MIefile2D@michigan.gov

Missouri: Mitzi Crump, 301 W. High Street, Room 330, Jefferson City, MO 65105; (573) 751-6787;
        Mitzi.Crump@dor.mo.gov

New Jersey: For income tax: For corporation tax:
        Anne Wysocki   Saida Jeudy
        NJ Division of Taxation   NJ Division of Taxation
        50 Barrack St. PO Box 269   50 Barrack St. PO Box 269
        Trenton, NJ 08695   Trenton, NJ 08695
        609-633-3878   609-292-8135
        Anne.wysocki@treas.state.nj.us   saida.jeudy@treas.state.nj.us

New Mexico: Gale Kessler, New Mexico Taxation and Revenue Department, 1200 So. St. Francis
        Drive, Santa Fe, NM 87501; 505.827.1746; Gale.Kessler@state.nm.us

New York: The current contact is listed below. Please note that we are evaluating our existing soft-
        ware company review process and a revised contact lst will be announced prior to the next
        tax season.
        Cindy Hitchcock, NYS Department of Taxation & Finance, W.A. Harriman Campus,
        Building 8, Room 758, Albany, NY 12227; Phone: (518) 457-2946; Email:
        Cindy_Hitchcock@tax.state.ny.us

North Dakota: Lucas Asche, 600 E Boulevard Ave, Dept 127, Bismarck ND 58505-0599,
        lwasche@nd.gov, 701-328-3129

Oklahoma: Ginger Hulsey; E-File/Barcode Coordinator, Oklahoma Tax Commission, 2501 N Lincoln Blvd, Oklahoma City, OK 73194; ghulsey@tax.ok.gov; 405-521-3637 or 405-522-2981

Oregon: Suzie Mc Donnell, 955 Center Street NE, Salem, Oregon 97310; 503-945-8444; Suzie.E.McDonnell@state.or.us

Pennsylvania: Jeff Weaver, 717-705-2275.

South Carolina: Neva Clark 301 Gervais St., PO Box 125 Columbia, SC 29214; 803.898.5536; clarkn@sctax.org

Tennessee: Sondra Morris   Mike Rock
7th Floor, Andrew Jackson Bldg.   7th Floor, Andrew Jackson Bldg.
500 Deaderick St.   500 Deaderick St.
Nashville TN 37242   Nashville TN 37242
Sondra.Morris@state.tn.us   Mike.Rock@state.tn.us
(615) 741-8203   (615) 741-8364

Utah: Jim A. McNair, 210 N 1950 W, Salt Lake City, UT 84134; (801) 297-7618; jamcnair@utah.gov

Wisconsin: Ray Burkhart, Section Chief — Tax Processing Bureau, Wisconsin Dept. of Revenue, PO Box 8903, Madison, WI 53708-8903; 608-264-9942