Arizona Department of Revenue

2D Barcode Developer's Manual
Pub AZ-100

A Supplement to Publication AZ-100-A,
2D Barcode Record Layouts and Specifications

TAX YEAR 2010

Version: Final
Issued: November 17, 2010

SECTION 1 – INTRODUCTION

This publication provides information necessary for the development of software intended for use by businesses and individuals in filing Arizona income tax returns with 2D Barcodes. If you have any questions, please contact the Arizona Department of Revenue personnel listed below. Please refer to our web site **www.azdor.gov** for 2D Barcode updates.

You are invited to contact us with any question or comment you have regarding our electronic filing program.

Alven Brite, 2D Barcode Project Manager
Phone: 602-716-6912
Fax: 602-716-7983

Email: **azbarcode@azdor.gov**

Mailing Address:

Arizona Department of Revenue
Attention: Efile Section, 4th Floor
1600 West Monroe Street
Phoenix, Arizona 85007-2650

Web Address: www.azdor.gov

The Arizona Department of Revenue's website may be accessed for 2D Barcode updates including tax forms, form instructions and additional information covering a broad range of tax-related topics.

SECTION 2 – CHANGES AND REMINDERS FOR TAX YEAR 2010

Changes or new additions to specifications and layouts are **bold** text. Record layouts, available in Publication AZ-100-A, contain a Change column which indicates changes from TY2009 to TY2010.

1. Application to Participate - Submission of the Application to Participate is required by all developers prior to testing. A sample of the application can be found in the Appendix of this publication. See Section 3 for further details.

2. Standard Deduction – the standard deductions for tax year 2010 remain the same as tax year 2009:
   Single and Married Filing Separate = **$4,677**
   Head of Household and Married Filing Joint = **$9,354**

3. Extra Time for Filing 2010 Returns – Taxpayers have extra time to file and pay for 2010 because April 15, 2011 is a legal holiday in Washington DC. This means that 2010 calendar year tax returns are due no later than midnight, **April 18, 2011**.

4. New Refund Check-off for the "I Didn't Pay Enough Fund" - Taxpayers may give some or all of their refund to the "I Didn't Pay Enough Fund". Gifts made to the "I Didn't Pay Enough Fund" will aid the state by going to the Arizona General Fund.

5. Other Refundable Credits – new line on the 140, 140PY, and 140NR forms for refundable credit for R&D (CR308-I) and renewable energy (CR342).

6. Nonresidents Must Now Prorate the Standard Deduction – Nonresident individuals, who claim the standard deduction, must now prorate the deduction by the percentage which the taxpayer's Arizona gross income is of the taxpayer's federal adjusted gross income.

7. Extension Period - Arizona has a 6-month extension, valid until **October 17, 2011.**

8. Personal Exemption Allocation Election (Form 202)
   The Personal Exemption Allocation Election must be present when filing status 3 (Married Filing Separate) or 4 (Head of Household). And, when more than ½ of the total exemption is claimed, refer to 140 instructions for further details.

9. Credit Forms Supported for 2D Barcode:
   310 - Credit for Solar Energy Devices
   321 - Credit for Contributions to Charities
   322 - Credit for Contributions Made to Public Schools
   323 - Credit for Contributions School Tuition Organizations
   340 - Credit for Donations to the Military Family Relief Fund

10. Handheld Scanners - Arizona uses handheld scanners to scan incoming 2D barcode returns. Experience has shown that the scanners perform best when the barcode symbols are a 2:1 size ratio.

11. Alerts and Information
    In order to receive updates and notices you may want to signup for Arizona Alerts. Send an email to **E-fileAlert@azdor.gov**. Please put "subscribe" in the message subject. To discontinue receiving the alerts, send an email to **E-fileAlert@azdor.gov** and put "unsubscribe" in the message subject.

12. Reminders:
    - Instruct user(s) to reprint barcode page if data changes after original printing.
    - Do not zero fill numeric fields.
    - Do not use hyphens in SSN, FEINs, etc.
    - Use UPPERCASE for all alpha characters.
    - Do not punctuate suffixes, middle initials, or addresses.

13. International ACH Transaction (IAT) – If the taxpayer checks the IAT checkbox (located adjacent to the Direct Deposit fields), disable the Direct Deposit fields. A paper check will be issued to the taxpayer.

14. Closures - The Arizona Department of Revenue is closed on the holidays and furlough days indicated below:

2011

January

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

February

Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

March

Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April

Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May

Su	M	Tu	W	Th	F	Sa
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

June

Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

July

Su	M	Tu	W	Th	F	Sa
					1	2
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10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August

Su	M	Tu	W	Th	F	Sa
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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September

Su	M	Tu	W	Th	F	Sa
				1	2	3
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

October

Su	M	Tu	W	Th	F	Sa
						1
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November

Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Holiday Furlough

SECTION 3 – PROGRAM PARTICIPATION

Any software vendor who is considering using 2D Barcode needs to be approved by the Arizona Department of Revenue for form design. The form design is the same regardless of whether or not the 2D Barcode is used. To participate in the 2D Barcode program, please submit an Application to Participate send written intent via e-mail to **azbarcode@azdor.gov.**

Once the Arizona Department of Revenue receives written notification of intent to participate, you may begin testing. Test scenarios will be sent to you via e-mail after you notify us of your intent to participate. Test scenarios may also be available on the Arizona Department of Revenue website (www.azdor.gov/Eservice/developer_efile.asp).

The Arizona Department of Revenue will give formal approval when software has successfully completed testing. Only approved software may be released and distributed by the developer.

When reviewing forms for approval, the department is verifying the form can be processed through its integrated tax system. The department does not review or approve the logic of specific software programs, nor confirm the calculations entered on the forms output from these programs. The accuracy of the program remains the responsibility of the software developer. The accuracy of the information on returns prepared using a computer program remains the responsibility of the taxpayer.

Approved software vendors will be posted on the department's web site at http://www.azdor.gov/Eservice/developer_2d.asp.

Important Notice

Approval of software for 2D Barcode **does not** include approval of any substitute form developed/produced for hardcopy submission to the Arizona Department of Revenue.

The External Services and Special Projects Division of the Department of Revenue must approve all Arizona tax forms.

Address your inquiries and requests for tax form approval to:

Address: Forms Approval - Room 810
Arizona Department of Revenue
1600 West Monroe
Phoenix, AZ 85007

Contacts: Bob Williams
Voice: 602.716.6801
Email: bwilliams@azdor.gov

Sharyn Zamora
Voice: 602.716.6798
Email: szamora@azdor.gov

Fax Number: 602.716.7995

SECTION 4 – SOFTWARE REQUIREMENTS

Any software developed for the 2D Barcode program must meet state requirements. The following is to complement IRS and Arizona publications and is in no way intended to alter or amend their requirements.

1. Comply with all state requirements specified in the following publications:
    - Arizona Software Developers Manual AZ–100 for 2D Barcode for Tax Year 2010.
    - Arizona Publication AZ-100-A File Specifications and Layout.
2. Adhere to all state procedures, requirements and specifications.
3. Successfully complete all testing.
4. Develop preparation software in accordance with statutory requirements and Arizona Department of Revenue return preparation instructions.
5. Provide accurate Arizona income tax returns with printed 2D Barcode in correct format.
6. Place 2D Barcode in the blank rectangle to the left of lines 12 thru 24.
7. 2D Barcode function is a default setting when electronic filing is also offered in the program.
8. Print four digit NACTP vendor code on the bottom of the form to the right of the ADOR form number. (For identification purposes only).
9. Provide data validation, verification and error detection to prevent transmission of incomplete, inaccurate or invalid return information.
10. Developed software is not to support 2D Barcode of any form not approved for 2D Barcode by the Arizona Department of Revenue.

SECTION 5 – RETURNS AVAILABLE FOR 2D BARCODE

Both refund and payment due returns may be filed with 2D Barcoding. The primary tax returns supporting 2D Barcode for tax year 2010 are:

- 140 Resident Personal Income Tax Return
- 140A Resident Personal Income Tax Return (Short Form)
- 140NR Non-Resident Personal Income Tax Return
- 140PY Part-Year Personal Income Tax Return
- 140PTC Property Tax Refund (Credit) Claim

Supporting forms available for 2D Barcode consist of the following types. These forms MUST be included in the 2D Barcode for the 140 form when required/utilized for return preparation and filing.

- AZ Schedule A (2D) Arizona Copy of Federal Schedule A
- 140 Schedule A Arizona Itemized Deduction Adjustments
- 140PY A(PY) - Itemized Deductions Part-Year Resident
- 140PY A(PYN) - Itemized Deductions for Part-Year Resident with Nonresident Income
- 140NR A(NR) - Itemized Deductions for Nonresidents
- Selected 300 Series Tax Credit Forms:
  - 310 - Credit for Solar Energy Devices
  - 321 - Credit for Contributions to Charities
  - 322 - Credit for Contributions Made to Public Schools
  - 323 - Credit for Contributions School Tuition Organizations
  - 340 - Credit for Donations to the Military Family Relief Fund

Forms identifying tax withheld (i.e. W-2 and 1099R forms) are to be included in the 2D Barcode when an amount for state withholding exists.

All other supporting Arizona forms are not to be included in the 2D Barcode. These forms, plus the forms included in the 2D Barcode, must be printed, attached to the return, and sent to the Arizona Department of Revenue. Refer to Arizona Publication AZ-100-A, *Arizona Department of Revenue 2D Barcode File Specifications and Record Layout*, for state record information.

The Arizona Department of Revenue Forms 140, 140A, 140NR, 140PY, and 140PTC (software vendor versions) and instructions are sent to all NACTP members via e-mail. If you have not received these forms, you may request them through our 2D Barcode e-mail address **azbarcode@azdor.gov**.

SECTION 6 – GENERAL INFORMATION / ERRORS TO AVOID

Barcode:

- Barcode width should be 3 5/16". The width shall not be wider than 3 5/16". The size of the barcode vertically will vary according to the information contained in the barcode.
- Arizona uses handheld scanners to scan incoming 2D barcode returns. Experience has shown that the scanners perform best when the barcode symbols are a 2:1 size ratio.
- DO NOT stretch the barcode.

Fields:

- For blank fields, use a carriage return <CR>.

  Check boxes:
  - An X indicates Yes, nothing (unchecked) is Null.

  Social Security Numbers/FEIN/TIN:
  - Do not use hyphens.

  Numeric:
  - Do not zero fill numeric fields.
  - Use whole-dollar amounts only.
  - Commas are not permitted in numeric fields.
  - Round dollar amounts from W-2s, 1099R, etc before entering amount on tax form.

  Alpha:
  - Use UPPERCASE for all alpha characters.
  - Do not punctuate suffixes - Jr, Sr, I, II, III, etc.
  - Do not punctuate middle initial. Example: Mary J. Doe (incorrect) MARY J DOE (correct).
  - Do not place a space in last name. Example: MC DONALD(incorrect) MCDONALD (correct), remove space to ensure accurate processing.
  - Hyphens are acceptable in last name fields.
  - No extra spaces or punctuation should be in data. Example: "100 East Main," should be keyed as "100 EAST MAIN".

Important Post-Printing Reminders:

- Instruct user to reprint barcode page if data changes after original printing of a form.
- Do not cover information with pre-printed label.

Record Layout:
The intended use of the Description Column is to cross reference the barcode field number, form line number, and form line wording. The description may not be exact due to limitations of space. Refer to the tax form and instructions for the exact line wording.

Trailer: The last field in the barcode data stream is the trailer. It is used to indicate the end of data has been reached. A static string of "*EOD*" is used as the trailer value. If a trailer is not found, this indicates a data overflow condition has occurred.

Header Information: There is information generic to all barcodes that should be placed first in the barcode data stream. The first six fields in the barcode comprise the official header. The fields in the official header are variable length and therefore can contain as much or as little data as is necessary.

This information must be consistent among all barcodes and is defined below. (Note: The symbol <CR> is used to represent a single carriage return character.)

Header Version Number: will be incremented each time the standards group alters the physical structure of the barcodes that were created using multiple header formats. This value is static for all barcodes and is currently T1.

Developer Code: A four-digit code used to identify the Software Developer whose application produced the barcode. The purpose of this field is to allow forms to be traced to the vendor producing them. Software Developer codes are assigned through the NACTP.

Jurisdiction: An alphanumeric identifier indicating the taxing jurisdiction. Use the US Postal Service's official state abbreviations.

Description: An alphanumeric identifier used to describe the form being processed. The identifier can be used to route the barcode information to the correct system for further processing.

Specification Version: A number that identifies the version of the specifications used to produce the form barcode. These specifications are provided by the jurisdiction processing the form and describe the data layout in the barcode. Draft versions of the specifications are not assigned version numbers. The final version shall be "0", revision thereafter will increase numerically.

Software/Form Version: A vendor defined version number that reflects the software and form revision used to produce the barcode.

Example:

Header Version Number "T1"
Developer Code:"9999"
Jurisdiction: "AZ"
Description: "AZ140"
Specification Version: "01"
Software/Form Version: "1"

Raw Header:

T1<CR>9999<CR>AZ<CR>AZ140<CR>01<CR>1<CR>

SECTION 8 – MAILING ADDRESSES

2D returns are presorted by mailing address to allow quicker processing.

Not sending a payment or expecting a REFUND:
Arizona Department of Revenue
PO Box 29205
Phoenix, AZ 85038-9205

Sending a payment:
Arizona Department of Revenue
PO Box 29204
Phoenix, AZ 85038-9204

SECTION 9 – TESTING

Testing of software developed for 2D Barcode is mandatory. All software must be tested using the Arizona scenarios. Scenarios require the appropriate forms to be created for 2D Barcode testing. Test scenarios are e-mailed to those who submit their notice of intent to participate.

> It is not necessary to submit test returns for forms not supported by the software application. However, to maximize the benefits of alternative filings, the Arizona Department of Revenue encourages software developers to include all available 2D barcode forms into the program application.

The Arizona Department of Revenue will give formal confirmation via email when software has successfully completed testing. Only approved software may be released and distributed by the developer.

Any developer wishing to conduct testing in addition to that supplied and required by the Arizona Department of Revenue must obtain approval to do so prior to test submission.

SECTION 10 – ERROR DETECTION AND NOTIFICATION

The Arizona Department of Revenue will immediately notify the developer when it detects a software problem or error. Likewise, software developers are to immediately notify the department of problems or errors associated with the software or its use. Such notifications are to be made by e-mailing the 2D Barcode staff office at **azbarcode@azdor.gov**.

When a software error is identified, it is the responsibility of the software developer to immediately notify their user population, correct the problem and expeditiously distribute the appropriate software revision (correction) to their clients. Additionally, the Arizona Department of Revenue is to receive immediate notification of all software errors and problems. The department is to be advised when corrections are made and supplied with the related software version number and release date. The department is to be kept advised of all software versions (identification number and distribution date).

APPENDIX – APPLICATION TO PARTICIPATE/LETTER OF INTENT

A sample Application to Participate is shown below. Please send an email to the 2D Barcode staff at **azbarcode@azdor.gov** to request the fillable application.

Arizona e-file consider it done

Tax Year 2010 Arizona e-File Application to Participate

* Software developers must provide the information requested below before transmissions will be accepted for testing.
* Receipt and acceptance of the required documentation identifies the developer as interested in participating in the electronic filing programs for Arizona.
* It does not represent acceptance of any software nor does it confirm the accuracy of any software developed.

1. Company Name:

2. Product Names:

3a. Test ETIN(s): 3b. Test EFIN(s):

4a. Production ETIN(s): 4b. Production EFIN(s):

5. Developer Code (e-File): 6. Vendor ID (2D Barcode):

User selected (Must be a name, not a number). This is Alphanumeric Field 300, Position 1-10. 4-digit NACTP Software Developer Code

7. Company Address:

8. Please indicate the forms you intend to support (by product type): ☐ Check here if the same Programming Contact for all product types and enter contact info in only one type

a. Product Types:	☐ Professional	☐ Retail (Individual User)	☐ Online (Individual User)	☐ 2D Barcode
b. Programming Contact				
c. Phone:				
d. Email Address:				

☐ 140	☐ 307	☐ 140	☐ 307	☐ 140	☐ 307	☐ 140
☐ 140 Sch A	☐ 308-I	☐ 140 Sch A	☐ 308-I	☐ 140 Sch A	☐ 308-I	☐ 140 Sch A
☐ 140A	☐ 309	☐ 140A	☐ 309	☐ 140A	☐ 309	☐ 140A
☐ 140EZ	☐ 310	☐ 140EZ	☐ 310	☐ 140EZ	☐ 310	☐ 140NR
☐ 140NR	☐ 312	☐ 140NR	☐ 312	☐ 140NR	☐ 312	☐ Sch A(NR)
☐ Sch A(NR)	☐ 315	☐ Sch A(NR)	☐ 315	☐ Sch A(NR)	☐ 315	☐ 140PY
☐ 140PY	☐ 319	☐ 140PY	☐ 319	☐ 140PY	☐ 319	☐ Sch A(PY)
☐ Sch A(PY)	☐ 320	☐ Sch A(PY)	☐ 320	☐ Sch A(PY)	☐ 320	☐ Sch A(PYN)
☐ Sch A(PYN)	☐ 321	☐ Sch A(PYN)	☐ 321	☐ Sch A(PYN)	☐ 321	☐ 140PTC
☐ 131 Deceased	☐ 322	☐ 131 Deceased	☐ 322	☐ 131 Deceased	☐ 322	☐ 310
☐ 202 MFS Alloc	☐ 323	☐ 202 MFS Alloc	☐ 323	☐ 202 MFS Alloc	☐ 323	☐ 321
☐ 204 Extension	☐ 325	☐ 204 Extension	☐ 325	☐ 204 Extension	☐ 325	☐ 322
☐ 221 Underpymt	☐ 331	☐ 221 Underpymt	☐ 331	☐ 221 Underpymt	☐ 331	☐ 323
☐ 301	☐ 332	☐ 301	☐ 332	☐ 301	☐ 332	☐ 340
☐ 302	☐ 333	☐ 302	☐ 333	☐ 302	☐ 333	
☐ 304	☐ 334	☐ 304	☐ 334	☐ 304	☐ 334	
☐ 305	☐ 336	☐ 305	☐ 336	☐ 305	☐ 336	
☐ 306	☐ 340	☐ 306	☐ 340	☐ 306	☐ 340	

Remarks (enter Operations Contact if different from Programming Contact, other pertinent info, etc):

Reset Form | Submit by Email