New York State
Reproduction of Income Tax Forms:
A Guide for
Software Developers for
Tax Year 2024

For Personal Income, Fiduciary, Estate, and Partnership Tax

Section 1: Introduction to paper vendor testing

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Section 1: Introduction to paper vendor testing

Introduction

NYSDTF has established these guidelines and standards for National Association Computerized Tax Processors (NACTP) members that plan to market, distribute, or file substitute tax forms.

Publication 75

This publication provides the testing requirements for vendors who plan to reproduce NYSDTF scannable and non-scannable forms. The information provided in this publication applies to all associated tax types: personal income tax (PIT), fiduciary (FID), estate (ET), and partnership tax (PT).

This publication should be used in conjunction with the most current version of the following publications:

- **Publication 95,** *NYS Modernized e-File (MeF) Guide for Software Developers for Tax Year 2024,* can be found under *Additional Specifications* at: *https://www.tax.ny.gov/bus/efile/Ind_income_tax_home_page.htm.* This site is password protected. If you need to access the site, contact the 2D Test Team via email at *2D.Vendor.Inquiries@tax.ny.gov*.
- **Publication 63,** *Specifications for Reproduction of New York State Sales and Use Tax, Employer, and Miscellaneous Tax Forms,* can be found at the *Forms Bulletin Board for Practitioners* at: *https://www.tax.ny.gov/draftforms/incomefinal.htm.* This site is password protected. If you need to access the site, contact the 1D Test Team via email at *1D.Vendor.Inquiries@tax.ny.gov*.

New York State income tax forms

New York State income tax forms can be found on the *Forms Bulletin Board for Practitioners* at: *https://www.tax.ny.gov/draftforms/incomefinal.htm.* This site is password protected. If you need to access the site, contact the 1D Test Team via email at *1D.Vendor.Inquiries@tax.ny.gov*.

Unchanged forms are shaded on the form chart and can be found under the last revision date here: *https://www.tax.ny.gov/forms/prvforms/prev_year.htm.*

Organizational structure

NYSDTF has three teams for testing paper vendors:

- 1D Test Team
- 2D Test Team
- Forms Team

The **1D Test Team** focuses on scannable and non-scannable forms, this includes: DTF-prefix forms, IT-prefix forms that do not contain a 2D barcode, estate tax forms, and payment vouchers. They review forms to make sure the replications are substantially identical to NYSDTF forms.

The **2D Test Team** reviews scannable IT-prefix forms that contain 2D barcodes. They review forms to make sure the 2D barcode is formatted correctly and meets NYSDTF 2D specifications.

The **Forms Team** reviews and provides information to vendors regarding form inquires and changes.

Email communications

The Department prefers electronic delivery of information. You can contact each team using the following:

- **1D Test Team:** *1D.Vendor.Inquiries@tax.ny.gov*
- **2D Test Team:** *2D.Vendor.Inquiries@tax.ny.gov*
- **Forms Team***: TSS.PITForms.Review@tax.ny.gov*

Physical mailing addresses

Mail (U.S. Postal Service only) to:	or	Send by private delivery service to:
NYS TAX DEPARTMENT		NYS TAX DEPARTMENT
OPTS **PITB Dev** 1D FORMS REVIEW		OPTS **PIT** 1D FORMS REVIEW
W A HARRIMAN CAMPUS		90 COHOES AVE
ALBANY NY 12227-0865		GREEN ISLAND NY 12183

New for tax year 2024 (TY2024)

New forms for TY2024:
• Form IT-663, *Commercial Security Credit*

Discontinued forms for TY2024:
• Form IT-229, *Real Property Tax Relief Credit*
• Form IT-656, *Grade Number 6 Heating Oil Conversion Credit*

What's new for 1D testing for TY2024:
• **Forms and Instructions from previous tax years**
• Unchanged forms are forms that have not been changed or required any updates from the previous tax year.
• If a form has not changed in previous years, the vendor will only be required to submit the unchanged form(s) with their hard copy submissions for testing.
• See page 8, *Types of submission samples* under 1D Testing, for more details.

What's new for 1D and 2D testing for TY2024:
• **Modified Testing:**
• New for tax year 2024, NYSDTF will offer modified testing. Modified testing will only apply to secondary software products that use the same calculation engine as the primary product. Secondary products will only go through the final stage of review.
• See page 8, *Types of submission samples* under Modified Testing, for more details.

Section 2: Software requirements

Reporting and correcting errors in software products

The following steps must be taken to ensure stoppage of production errors:

• Immediately notify NYSDTF of any software errors as they are identified during the filing season.
• Discuss with NYSDTF options to correct errors.
• NYS must review and approve outward communication regarding software errors affecting already filed returns and resolutions prior to distribution to your clients.
  – NYS will complete its review within two business days. You may send your outward communication to clients if NYS does not complete its review in that time.
  – Where you are legally required to communicate with clients before two business days, for instance under some states' breach notification laws, you may do so before receiving NYS approval.
• Make every reasonable effort to test with NYSDTF before moving changes to production.
• Correct software errors identified by the Internal Revenue Service (IRS), NYSDTF, or you, as the vendor, and distribute updates of your software packages to your users.
• The vendor must supply NYSDTF with the specific resolution and date when the software fix is released.
• Users of desktop products who attempt to file 10 or more business days after a production release will be required to download and apply product updates.
• Failure to comply may result in suspension from the program.

Provide a copy of software

NYSDTF requires that software developers provide us with a copy of their software or access to an online service upon completion of 1D/2D testing and prior to our final approval. NYSDTF will use the software for research and to troubleshoot production issues, as well as simulate printing. NYSDTF does not require a source code. We will not use it to prepare or file returns.

Online applications can be sent to the 1D Test Team at *software.testing@tax.ny.gov*.

Physical copies should be mailed to:

Mail (U.S. Postal Service only) to:	**or**	Send by **private delivery service** to:
NYS TAX DEPARTMENT		NYS TAX DEPARTMENT
OPTS **PITB Dev** 1D FORMS REVIEW		OPTS **PIT** 1D FORMS REVIEW
W A HARRIMAN CAMPUS		90 COHOES AVE
ALBANY NY 12227-0865		GREEN ISLAND NY 12183

Required messages

Provide a printed copy of the following messages from your software product and indicate where in the software the message is displayed.

E-file mandate

For information regarding *Who the e-file mandate applies to,* visit our website. If returns are not filed and paid electronically when required, NYSDTF can impose penalties on the preparer.

Software products for consumers must display the following message:

This message **must** be provided in a manner that ensures the user will see it at the start of filing:

> You are required to electronically file your New York State return.
>
> New York State requires most taxpayers to file electronically if they are using tax software to prepare their returns. Please note that there is no additional fee for e-filing. The law also provides that once you've paid for tax preparation software, you cannot be charged an additional fee for e-filing.

Software products for professionals must display the following messages:

Vendors **must** provide the following information to their **tax professional users.** This message must be provided in a manner that ensures the user will see it at least once at the start of the filing season.

> ### New York State e-file mandate
> **Taxpayers and tax return preparers using approved e-file tax software to prepare taxpayer returns are required to electronically file (e-file) authorized tax documents.**
>
> To learn more about the e-file mandate for tax professionals, visit the New York State Tax Department's website at *www.tax.ny.gov.*
>
> If you do not file and pay electronically when required to do so, you will be subject to penalties from the New York State Tax Department.

Vendors **must** display the following information to users during the preparation of a **personal income tax or fiduciary income tax return or extension:**

> ### Sign up with the NYS Tax Department to receive an email notification when your New York State income tax refund is issued.
> The New York State Tax Department provides email notifications to taxpayers about their personal tax accounts. Visit *Online Services* at the NYS Tax Department's website, *www.tax.ny.gov*.

Additional messages required for forms with 2D barcodes

In addition to the e-file mandate screen shots above, forms with 2D barcodes require the following screen shots be sent to the 2D Test Team via email at *2D.Vendor.Inquiries@tax.ny.gov*:

Handwritten entries are not allowed

Printing of 2D forms will require that the vendor add a pop-up message stating:

> **Filing your return on paper is not recommended.** If it is necessary to file a paper return, do not write on the return. Only signatures are allowed. Other handwritten information will not be used in tax computation or for processing your return.

Driver license and non-driver ID

You must provide a screenshot of the pop-up message from your software demonstrating that the driver license or non-driver ID information is being presented to the user. For more information, see the following links:

• **Preparer:** *https://www.tax.ny.gov/tp/driverlicense.htm*
• **Individual:** *www.tax.ny.gov/pit/efile/individual-driver-license.htm*

ACH withdrawal

You must send screen shots of your software's ACH withdrawal date showing the electronic funds withdrawal date as the current date and as a future date, but not past the filing due date. If screen shots cannot readily show the default as the current date, you must provide a confirmation statement. We require that if date default functionality exists in your software, you must make the ACH payment date default to current date. The software must also include the ability for the taxpayer to change the ACH payment date to a future date, up to the filing due date. Setting the ACH payment default date to the filing due date is not allowed. Setting the payment default date past the filing due date is also not allowed.

Printed returns

When preparing a credit form, if the taxpayer meets a form condition that says, "stop; *you do not qualify for this credit.*", show message to the user and do not allow the form to print.

Section 3: Approval process

Failure to complete 1D and 2D barcode testing **may delay your electronic filing (MeF) approval.** Also, substitute forms are not to be released until NYSDTF releases their version of the form to the public. This is considered the release date and any substitute forms filed by a taxpayer in advance of the release date will not be processed.

NACTP

All products require a separate vendor code. If you are unable to receive a vendor code from the NACTP, contact the 1D Test Team via email at *1D.Vendor.Inquiries@tax.ny.gov*.

Letter of Intent (LOI)

Vendors interested in testing paper reproduction of NYSDTF forms must submit an LOI.
The department will accept two separate Letter of Intents, one for 1D testing and one for 2D testing, see below. The LOI's will be available on the *Forms Bulletin Board for Practitioners* at: *https://www.tax.ny.gov/draftforms/incomefinal.htm.*This site is password protected. If you need to access the site, contact the 1D Test Team via email at *1D.Vendor.Inquiries@tax.ny.gov.*

LOI for 1D testing:
• **Form TR-376-IT,** *Letter of Intent (LOI) to Develop Substitute Income Tax Forms – 1D*

LOI for 2D testing:
• **Form TR-376.3-IT,** *Letter of Intent (LOI) to Develop Substitute Income Tax Forms – 2D*

Submitting forms for approval

Developers should include a completed cover sheet with each submission:

Coversheet for 1D testing:
• **Form TR-376.1-IT**, *Software Developer Forms Approval – 1D*

Coversheet for 2D testing:
• **Form TR-376.2-IT**, *Software Developer Forms Approval – 2D*

Email format for forms submissions

Developers must use the following guidelines for submission emails:

Subject line

The subject line for a submission package email must be formatted as follows:

For 1D testing:

- Vendor code, company name, and form numbers.
  - **Example**: 0007, Bond Tax Co., 222, 245, 250, and 225

For 2D testing:

Test Case Naming Convention

The department will accept two different methods for numbering test cases.

- **Naming Convention A**: Testing each form individually. If testing attachments, a 'dummy' primary form must be included. Test case numbering must be in sequential order **for each form** starting with "Test Case 1" and incrementing to "Test Case 2", "Test Case 3", and so on.
  - Example 1: 1111_215_TC01_082522_O.pdf (with 'dummy' primary form)
  - Example 2: 1111_215_TC02_082522_O.pdf (with 'dummy' primary form)
  - Example 3: 1111_272_TC01_082522_O.pdf (with 'dummy' primary form)
  - Example 4: 1111_272_TC02_082522_O.pdf (with 'dummy' primary form)
- **Naming Convention B**: Testing multiple forms in one PDF file. If testing multiple forms in one PDF file, the PDF name must be the name of the primary form. Test case numbering must be in sequential order **for each PDF file** starting with "Test Case 1" and incrementing to "Test Case 2", "Test Case 3", and so on.

Test case PDFs must follow the below naming convention: NNNN_FFFFFF_TCID_MMDDYY_X.pdf

Where:

NNNN	=	the vendor code
FFFFFF	=	the form name (numbers and letters) for example, 201 or 201ATT (no prefix or dashes)
TCID	=	Test Case ID, "TC" is a constant value
MMDDYY	=	date of submission
X	=	O for Original or R for Resubmission or P for Platform Test

PDF file format

Submissions must be sent in PDF file format using the following naming conventions:

For 1D testing:

Blank sample:
- PKG 0007 (vendor code) _Form XXX_bk.pdf (bk=Blank)
  - **Example:** PKG 0007_Form IT-201-V_bk.pdf

Full field Sample:
- PKG 0007(vendor code) _Form XXX_ff.pdf (ff=Full Field)
  - **Example:** PKG 0007_Form IT-245_ff.pdf

Variable sample:
- PKG 0007(vendor code) _Form XXX_var.pdf (var=Variable)
  - **Example**: PKG 0007_Form IT-245_var.pdf

For 2D testing:

- Vendor code, form name (include suffix), test case ID, submission date (DDMMYY)_X.pdf, where X = O for original, R for resubmit, and P for platform (version 01).
  - **Example 1:** 0007_201_TC01_082521_O.pdf
  - **Example 2:** 0007_201ATT_TC01_082521_R.pdf
  - **Example 3:** 0007_214SA_TC01_082521_P.pdf

Numbers of submission samples

For 1D testing:

- There will be a total of 24 forms allowed per week (Sunday to Saturday) with no more than 6 forms submitted per submission.

For 2D testing:

- There is no limit to the number of submission samples.

Types of submission samples

1D Testing:

Blank sample:

- Submit one original printout of a blank form (without data).

Full-field sample:

- Filling the maximum length of every field supported using X's in fields requiring alpha characters and 9's in fields requiring numeric characters.

Variable sample:

- Replicate a taxpayer's return by filling most sections of each form with hypothetical taxpayer information.

Full test deck:

- This requires one variable sample and one full-field sample.

Hard copy:

- Physically mail in a printed blank sample for each vendor code and include 1D barcodes for all forms supported. To ensure a good reading of the barcode, submissions should only include forms printed out of your software. Do not submit photocopies, as they tend to have poor barcode reads due to low ink saturation.

Forms and instructions for previous tax years

- Unchanged forms are forms that have not been changed or required any updates from the previous tax year.
- Forms that are not changed as of the current posting will be indicated on the *Bulletin Board* with an asterisk (*) and will not need to be submitted for full testing if previously approved in the prior year.
- If a form has not changed in previous years, the vendor will only be required to submit the unchanged form(s) with their hard copy submissions for testing.
- Unchanged forms can be found on our public website at: *https://www.tax.ny.gov/forms/prvforms/prev_year.htm*
- Unchanged Forms can be changed or updated by us at any time during the Tax Year. If a change or update occurs, the vendor will be notified and required to resubmit the form(s) for testing.

2D Testing:

- **2D testing documents** can be found on the *Information for Paper Software Developers* page at: *https://www.tax.ny.gov/bus/efile/income-tax-information-for-paper-software-developers.htm.* This site is password protected. If you need to access the site, contact the 2D Test Team via email at *2D.Vendor.Inquiries@tax.ny.gov*.

Modified Testing:

- New for tax year 2024, NYSDTF will offer modified testing. Modified testing will only apply to secondary software products that use that some calculation engine as the primary product. Secondary products will only go through the final stage of review.
- For 1D testing, once the primary product passes all phases of testing, the department will notify the vendor to submit their hard copies for all related products.
- For 2D testing, once the primary product passes initial review, the department will notify the vendor to submit their platform tests for all related products. The primary vendor code will be required to submit field mapping documents and corresponding test cases. The secondary products only need to submit their platform tests.

- NYSDTF reserves the right to request full testing of modified products at any time.
- Modified Products should be indicated on line 6 of Form TR-376-IT, *Letter of intent (LOI) to Develop Substitute Income Tax Forms - 1D,* and Form TR-376.3-IT, *Letter of Intent (LOI) to Develop Substitute Income Tax Forms - 2D*.

Test codes and requirements

Follow the chart below and review the submission requirements for each test code. For a list of forms and their corresponding test codes **see the chart on page 10.**

Test code	Form type	Submission requirements
1	All forms prefixed by"DTF", "ET", or "IT"	• one full test deck • separate cover sheet for each tax type • submit to 1D Test Team
2	Payment vouchers	• a blank, full-field, and variable sample • submit to 1D Test Team and cc JPMC at: *Form_Approval_Submissions@jpmchase.com*
3	Non-scannable and low volume forms	• one blank sample • for DTF-prefix forms, send one blank copy • submit to 1D Test Team
4	Forms with 2D barcodes	• required field testing • submit to 2D Test Team

Review process

Submissions will be reviewed in the order they are received.

For 1D testing:

- The first test submissions will be scanned and manually reviewed for content. Manual review will include examining forms for layout, completeness, and other key points. The entire form will be reviewed before it is returned to the developer for corrections.
- Once manual review is complete, you will need to send in hard copies of all forms for final approval. These forms should be mailed using one of the physical mailing addresses listed in section 1.
- Use paper of at least 18-pound bond or 45-pound offset that is equal to, or better than, the quality used for official forms. Forms must be reproduced on white paper.
- When replicating NYS forms, vendors must utilize their 4-digit vendor code in the 1D barcode. Utilizing public forms that use 0099 or 0094 from the *Forms Bulletin Board for Practitioners and Software Vendors* in the barcode is not allowed.

For 2D testing:

- Forms must comply with the 2D specification documents and the 2D barcode placement forms.
- Once initial review is complete, you must pass final analysis with form version 01 and provide the date your product will migrate to production.

Approval communication

Software vendors will receive test results within fourteen (14) business days of receipt of forms. There is no deadline for paper vendor testing. However, the 14-business day turn around for testing only applies to tests received prior to December 8, 2024.

Forms accepted for paper testing

Form	TC	FC	Form	TC	FC	Form	TC	FC	Form	TC	FC
DTF-622	1	622	IT-236	1	236	IT-645	1	645	IT-203-C	3	235
DTF-624	1	624	IT-237	1	237	IT-646	1	646	IT-205-J	3	126
DTF-626	1	626	IT-238	1	238	IT-647	1	647	IT-205-T	3	208
DTF-630	1	630	IT-239	1	299	IT-647-ATT	1	347	IT-211	3	211
DTF-664	1	664	IT-241	1	301	IT-649	1	649	IT-260	3	260
DTF-686	1	686	IT-242	1	302	IT-651	1	651	IT-260.1	3	261
DTF-686-ATT	1	687	IT-245	1	354	IT-652	1	652	IT-280	3	280
ET-14	1	N/A	IT-246	1	355	IT-654	1	654	IT-285	3	285
ET-30	1	002	IT-248	1	248	IT-655	1	655	IT-648	3	648
ET-85	1	003	IT-249	1	249	IT-657	1	657	IT-650	3	650
ET-90	1	008	IT-250	1	250	IT-658	1	658	IT-2105.1	3	061
ET-117	1	N/A	IT-251	1	251	IT-660	1	660	IT-2106.1	3	N/A
ET-130	1	009	IT-252	1	252	IT-661	1	661	IT-2658-E	3	N/A
ET-133	1	075	IT-253	1	253	IT-661-ATT	1	364	IT-2659	3	069
ET-415	1	N/A	IT-255	1	255	IT-662	1	662	TR-99	3	351
ET-706	1	022	IT-256	1	256	IT-663*	1	663	TR-579.1-IT	3	N/A
IT-6-SNY	1	136	IT-257	1	257	IT-2102.6	1	110	TR-579.2-IT	3	N/A
IT-112.1	1	111	IT-258	1	258	NYC-210	1	210	TR-579.3-IT	3	N/A
IT-112-C	1	141	IT-267	1	267	Y-203	1	246	TR-579-IT	3	N/A
IT-203-A	1	233	IT-398	1	398	Y-204	1	247	TR-579-PT	3	N/A
IT-203-ATT	1	243	IT-399	1	399	Y-206	1	206	IT-1099-R (2D)	4	099
IT-203-F	1	323	IT-501	1	501	IT-201-V	2	040	IT-112-R (2D)	4	112
IT-203-GR	1	305	IT-601	1	161	IT-205-V	2	045	IT-196 (2D)	4	196
IT-203-GR-ATT-A	1	306	IT-602	1	162	IT-370	2	370	IT-2 (2D)	4	102
IT-203-GR-ATT-B	1	307	IT-603	1	163	IT-370-PF	2	371	IT-201 (2D)	4	201
IT-203-GR-ATT-C	1	308	IT-604	1	164	IT-2105	2	060	IT-201-ATT (2D)	4	241
IT-203-S	1	310	IT-605	1	165	IT-2106	2	063	IT-201-X (2D)	4	361
IT-203-S-ATT	1	311	IT-606	1	166	IT-2658	2	031	IT-203 (2D)	4	203
IT-203-TM	1	315	IT-607	1	607	IT-2658-MTA	2		IT-203-B (2D)	4	234
IT-203-TM-ATT-A	1	316	IT-611	1	171	IT-2658-NYS	2		IT-203-X (2D)	4	363
IT-203-TM-ATT-B	1	317	IT-611.1	1	170	IT-2663-V	2	043	IT-204 (2D)	4	204
IT-204-LL	1	240	IT-611.2	1	169	IT-2664-V	2	044	IT-204.1 (2D)	4	116
IT-205-A	1	207	IT-612	1	172	DTF-75	3	N/A	IT-204-CP (2D)	4	117
IT-205-C	1	125	IT-613	1	173	DTF-95	3	N/A	IT-204-IP (2D)	4	118
IT-209	1	209	IT-631	1	631	DTF-96	3	N/A	IT-205 (2D)	4	205
IT-212	1	212	IT-633*	1	633	DTF-281	3	281	IT-213 (2D)	4	213
IT-212-ATT	1	242	IT-634	1	634	DTF-350	3	350	IT-214 (2D) (SA)	4	214
IT-213-ATT	1	239	IT-635	1	635	DTF-505	3	506	IT-214 (2D) (ATT)	4	214
IT-217	1	217	IT-636	1	636	DTF-620	3	N/A	IT-215 (2D)	4	215
IT-219	1	219	IT-637	1	637	DTF-625	3	625	IT-216 (2D)	4	216
IT-221	1	221	IT-638	1	638	DTF-625-ATT	3	325	IT-225 (2D)	4	225
IT-223	1	223	IT-640	1	640	IT-59	3	590	IT-272 (2D)	4	272
IT-226	1	226	IT-641	1	641	IT-119	3	119	IT-360.1 (2D)	4	360
IT-227	1	227	IT-642	1	642	IT-135	3	135	IT-653	4	653
IT-228	1	228	IT-643	1	643	IT-182	3	182			
IT-230	1	230	IT-644	1	644	IT-195	3	195			

TC = test code, FC = form code, Unchanged, New*, 2D = forms with 2D barcodes, SA = standalone, ATT= attachment

Section 4: Tax form design standards

Introduction

Working with the NACTP, we have developed these design standards to make substitute forms compatible with our processing and printing systems. Complying with these standards results in fewer forms being rejected from the processing stream, thus reducing processing time for taxpayers.

For general information on *Tax Form Design and Standards,* go to the NACTP website at: *https://www.nactp.org/index.php/income-tax/government-liaison-committee/standards-a-guidelines.*

Printing

Software should be programmed to print pages as actual size with no scaling and/or rotation.

Vendor code

You must add your vendor code on the bottom right corner of any form page that does not contain a barcode:

If you purchase software and this software has forms that do not contain a barcode, two vendor codes must print on the bottom of any form:

- In the bottom left corner, the vendor code of the company you purchased the software from.
- In the bottom right corner, your company's vendor code.

Annotations

A vendor's annotation is a comment added to their forms. These comments should be placed at the top of page 1, above the form number. For the remaining pages, add them to the top right of the page number.

Example of annotation above the form number:

Example of annotation next to the page number:

Margins

Margins should match the official form and most forms have a 1/2" minimum clearance, unless otherwise specified.

Watermarks

Forms with 2D barcodes must have a watermark on the right-hand side of each printed page. The watermark must be in **ALL CAPS**. Main forms and attachment forms have different watermarks, see the following:

- **Watermark for main forms (including standalone forms):** "*NO HANDWRITTEN ENTRIES, OTHER THAN SIGNATURE, ON THIS FORM.*"
- **Watermark for attachment forms:** "*NO HANDWRITTEN ENTRIES ON THIS FORM.*"

Note: Watermarks are exempt from the ½" margin specifications.

Preferred fonts

The style and size must be substantially identical to those used on the official forms. Data must be Arial or Courier in nine (9) point, ten (10) point, eleven (11) point, or twelve (12) point font. All vendors should only use black color font on forms.

Checkboxes

Approval of checkboxes can be accomplished using full-field or variable data test samples, they should be:

• Designed per the official form layout.

• Formatted as blank or **X** only.

• Set to auto for point size, making the largest checkmark **X** possible.

We will test all checkboxes on every form you support.

Outline boxes

Must be designed per the official form layout including outline boxes, decimal points, hard-coded zeros, and amount fields. Do **not** use underlines in place of rectangular boxes.

Shading in text areas

Where shading on a form appears, it is preferred to apply shading, but not mandatory. Reproduced shaded areas cannot have more than a 20% shade value and data **must not be entered** in these fields.

Unique logos and state seal

Unique logos must replicate the NYSDTF official form:

• for non-year-specific tax forms, use the generic logo map without year.

• for tax-year-specific forms, use the annual logo map with year.

• graphics are subject to change at any time.

Unique logos can be found on the *Forms Bulletin Board for Practitioners* (*Bulletin Board*) at: *https://www.tax.ny.gov/draftforms/incomefinal.htm.* This site is password protected. If you need to access the site, contact the 1D Test Team via email at *1D.Vendor.Inquiries@tax.ny.gov.*

Blank fields

When there is no taxpayer form line entry, all data fields must be left blank.

• Unless directed on the form or instructions, do not enter the following in blank variable data fields:

   – None, N/A, 00, 0.00, or 0.

Variable data formats

Data areas for dates, Social Security numbers, Employer identification numbers, telephone numbers, and ZIP codes must be free from preprinted dashes and slashes. Exceptions are as follows:

• a date field with the dashes in place, consistent with MeF standards, on the following:

   – Form IT-604, *Claim for QEZE Tax Reduction Credit.*
   – Form IT-606, *Claim for QEZE Credit for Real Property Taxes*.

• However, you **must** remove dashes and slashes from the remaining SSN, EIN, ZIP code, and ID fields on these forms.

Dollar amount field data

The preferred format for dollar amounts is the whole dollar, which may or may not be followed by a decimal point:

• Commas are never permitted.

• Negative dollar amounts must have a floating minus sign directly to the left of the first number with no extra space between the minus and the number.

Data field delimiters

Data such as Social Security numbers, dates, negative values, telephone numbers, and ZIP codes should display as follows:

- **Social Security numbers:** 999999999 or 999 99 9999
- **Dates:** when the format is not specified on the form, it must be mmddyyyy.
- **Negative values:** a floating minus sign directly to the left of the first number with no extra space between the minus and the number.
- **Telephone numbers:** 9999999999 or 999 999 9999
- **ZIP code plus four:** 999999999 or 99999 9999

Hard coded values

- Three hard-coded zeros and two cent zeros (000.00) must appear on the dependent exemption line (35 or 36) for all main forms (IT-201, IT-201-X, IT-203, IT-203-X).
- There must not be data on hard-coded fiduciary lines. In the following example, column A, the last box should contain the word "Fiduciary" only:

Schedule D – **Beneficiary's and fiduciary's share of credit** *(see instructions)*

A Beneficiary's name *(same as on Form IT-205, Schedule C)*	B Identifying number	C Share of qualified long-term care insurance credit
Total *(enter the amount from Schedule A, line 3, plus the amount from Schedule C, line 7)*		9999999999.00
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	999999999	9999999999.00
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	999999999	9999999999.00
Fiduciary	999999999	9999999999.00

Data placement

- **Right Justification:** Dollar and percentage amount fields.
  - **Exception:** Form IT-604, *Claim for QEZE Tax Reduction Credit* and Form IT-606*, Claim for QEZE Credit for Real Property Taxes*, full-time employee field totals can be right, or center justified.
- **Center Justification:** Dates, Identifying number, Employer Identification number (EIN), Taxpayer Identification number, Certificate number, Tax receipt number, CUSIP number, SLIHC tracking ID, (DER) site number, BIN number, Codes, Tax Years, Routing and Account numbers, Social Security numbers, ZIP codes, months, and numeric fields that are not dollar or percentage amounts.
- **Left Justification:** We prefer that *Type* fields on partnership and fiduciary form schedules be center justified, however, left justification will also be approved.

Payment vouchers

Payment vouchers must meet the following specifications:

- Overall form size should not exceed 8 ½" x 3 ⅔".
- Voucher must be printed at the bottom of the page.
- A cut line or perforation must be included to facilitate accurate separation from 8 1/2" x 11" paper.
- Date formats must match field specifications. If no specifications exist, the format must default to **mmddyyyy**.
- Data font should be 8-point minimum, non-bold, most common fonts are permitted.

Section 5: Image processing and scannable forms

Introduction

NYSDTF continues to find the most efficient and cost-effective way to process tax returns. Ultimately, electronic filing is the quickest and most accurate method. As we move taxpayers towards electronic filing, we employ automated image processing systems as an interim way to improve the processing rate of paper returns. Our systems scan, or mechanically read, paper returns to capture and electronically store pertinent tax data.

Designing for image processing systems
Currently, we have different ways to organize forms for image processing systems, they include:
- One-dimensional (1D) barcodes
- Two-dimensional (2D) barcodes
- Scanlines

One-dimensional (1D) barcodes
NYSDTF has implemented an automated forms process that uses a barcode. Currently, New York uses the Interleaved 2 of 5 barcode to identify income tax forms during processing. DTF-prefix forms may contain either one or two 1D barcodes, you must produce both 1D barcodes.

Height: must be between .25" and .375" (the official form 1D barcodes are .25" tall).

Construction: 1D barcodes may be constructed either graphically as a string of ASCII box characters or scanned onto the form as a bitmap.

Position: NYSDTF forms have 14-digit, 12-digit, and 10-digit 1D barcodes.

10-digit 1D barcodes are found on some unchanged forms and formatted as follows:
- The first 3 digits of the barcode identify the form type.
- The next digit identifies the page number.
- The next 2 digits identify the tax year.
- The last 4 digits identify the vendor source code.

12-digit 1D barcodes are found on most forms and formatted as follows:
- The first 3 digits of the barcode identify the form type.
- The next 3 digits identify the page number.
- The next 2 digits identify the tax year.
- The last 4 digits identify the vendor source code.

14-digit 1D barcodes are found on estate tax forms and formatted as follows:
- The first 3 digits of the barcode identify the form type.
- The next 3 digits identify the page number.
- The next 2 digits identify the month of the revision date.
- The next 2 digits identify the revision date year.
- The last 4 digits identify the vendor source code.

Example of 1D barcode:

217002190094

Two-dimensional (2D) barcodes
Forms with 2D barcodes and the testing requirements for these forms can be found on the *Information for Software Developers* page at: *www.tax.ny.gov/bus/efile/Ind_income_tax_home_page.htm.*
This site is password protected. If you need to access the site, contact the 2D Test Team via email at *2D.Vendor.Inquiries@tax.ny.gov*.

For more information on *2-D Bar Coding Standards* go to the NACTP website at:
https://www.nactp.org/index.php/income-tax/government-liaison-committee/standards-a-guidelines.

Barcode placement
Each form supported by the 2D program will contain one 2D barcode per page. The 2D barcode size and position will vary based on the form and page; the 2D barcode required placement is provided on each page of the form.

Barcode size and technical matters
- **File format** - PDF417
- **Error correction level** - Level 4
- **X (horizontal) dimension** - 10.0 mils
- **Y:X barcode ratio** - 2:1
- **White space** - There must be a 1/8-inch margin of white space around each barcode.
- **DPI -** 300 DPI minimum

Barcode layout
The data contained in a 2D barcode consists of 3 sections: Header Information, Tax Form Data, and Trailer. Each section is discussed separately below:
- **Header information:** contains identifying information and the format is consistent for all 2D barcodes.
- **Tax form data:** captures the data associated with the specific form. Software must include all taxpayer identifying information before the return is printed. The 2D barcode must include all the data that has been collected with the software regardless of the size limitation of the printed field.
- **Trailer:** each barcode must include a five-character End of Data field indicator (*EOD*). This is used to indicate that the end of data for that barcode has been reached.

Note: Every field is separated by a carriage return (<CR>), regardless of whether the field contains data or is null.

Field length and field type
Each field length and field type definition is documented in the 2D barcode specifications for each barcode; data entry in each field should be limited by the software to not exceed the defined length.

Field standards
- **Blank fields** - use a carriage return
- **Date -** MMDDYYYY, MMYYYY, YYYY, MMDD
- **"Yes/No" check boxes -** should be rendered as printed: if "Yes" box is checked, use an "X" for the sequence number assigned to the "Yes" box and a carriage return for the sequence number assigned to the "No" box. If no response (blank) use a carriage return.
- **Alphabetic characters -** Must be uppercase.
- **Fields should never be Zero filled -** To zero fill means to fill up the entire allowable length of the field with zeros. If the printed form requests that the field always contain some value or, if no value, then a single zero can be passed to the barcode.
- **Ratios and percentages** - these should match the data requirements that are established for printing on the form.
- **Special characters -** Do not use special characters unless specifically noted.
- **Direct deposit -** If the direct deposit refund option is marked, the vendor must require the taxpayer to complete the routing number and account number fields. If the electronic funds withdrawal box is marked, the vendor must require the taxpayer to complete the routing number, account number, electronic withdrawal date, and electronic withdrawal amount fields.

Required fields

Guidelines for address fields
Guidelines for address fields can be found in **Publication 95** under *Additional Specifications* at *https://www.tax.ny.gov/bus/efile/Ind_income_tax_home_page.htm*. This site is password protected. If you need to access the site, contact the 2D Test Team via email at *2D.Vendor.Inquiries@tax.ny.gov*.

Barcode printing
The vendor must make printing the 2D barcode required in their software program. The vendor must ensure that the 2D barcode cannot be altered, manipulated, or deleted.

Scanlines

Scanlines are required on all payment vouchers and must be formatted as follows:
- printed in OCR-A 10 cpi (non-bold).
- exactly 8/16" (1/2") above the bottom margin.
- contain required information in chart below.

Field name	No. of characters	Description
Form ID	10	See following Form Identification (ID) Codes section.
Blank spaces	2	
SSN or EIN	9	Nine-character Social Security number, EIN, or TF ID
Blank spaces	2	
Check digit	1	See following Check Digit section.

Example of scanline:
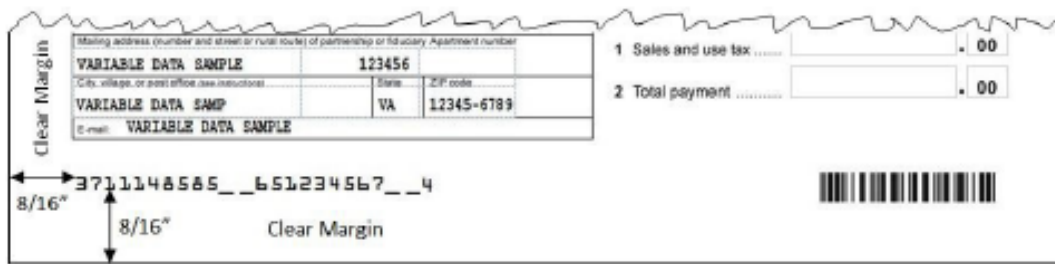
Form identification (ID) codes

The form ID must be:
- printed in OCR-A font at 10 characters per inch, non-bold (10 cpi).
- exactly 8/16" (1/2") from the left margin and exactly 8/16" from the bottom margin with at least 3/8" clearance around them.
- 10 digits in length, formatted as follows:
  - The first 3 digits of the barcode identify the form type.
  - The next digit identifies the page number.
  - The next 2 digits identify the tax year.
  - The last 4 digits identify the vendor source code.

Check digit

The check digit is calculated using the taxpayer identification number in **modulus 9 routine.**

Each of the 9 characters is multiplied by a value corresponding to its respective position within the 9-character string. The products of these 9 multiplications are summed. The sum is then divided by 9. The remainder of this division is then subtracted from the modulus 9, yielding the check digit.

If a taxpayer has a temporary TF or NY prefix number (these two letters plus seven numerals), use the following numbers in place of the letters when computing the check digit: T=29, F=15, N=23, Y=34

Examples of check digit calculations:

Example 1: *ID number (SSN) 255-76-8432*

2	5	5	7	6	8	4	3	2
×1	×2	×3	×4	×5	×6	×7	×8	×9
2 +	10 +	15 +	28 +	30 +	48 +	28 +	24 +	18 = 203

203 ÷ 9 = 22 with remainder of 5   and   9 - 5 = 4   Check digit = 4

The scan line (with check digit) would be: 255768432   4

Example 2: *ID number NY2349876 (assigned by the Tax Department)*

23		34		2		3		4		9		8		7		6		
×1		×2		×3		×4		×5		×6		×7		×8		×9		
23	+	68	+	6	+	12	+	20	+	54	+	56	+	56	+	54	=	349

349 ÷ 9 = 38 with remainder of 7   and   9 - 7 = 2   Check digit = 2

The scan line (with check digit) would be: `NY2349876  2`

Section 6: Websites

Tax department website for paper vendors:

https://www.tax.ny.gov/bus/efile/income-tax-information-for-paper-software-developers.htm

Forms bulletin board for practitioners

Publications, guides, preliminary and final forms can be found on the *Forms Bulletin Board for Practitioners* (*Bulletin Board*) at: *https://www.tax.ny.gov/draftforms/incomefinal.htm.* This site is password protected. If you need to access the site, contact the 1D Test Team via email at *1D.Vendor.Inquiries@tax.ny.gov*.

Driver license and non-driver ID

Preparer: *https://www.tax.ny.gov/tp/driverlicense.htm*

Individual: *www.tax.ny.gov/pit/efile/individual-driver-license.htm*

Forms and instructions for previous tax years

Unchanged forms with past year's revision dates can be found on our public website at: *https://www.tax.ny.gov/forms/prvforms/prev_year.htm.*

Form changes and updates

Check regularly for updates at: *www.tax.ny.gov/forms/income_up_to_date_info.htm.*

NACTP

For general information on *Tax Form Design and Standards* and *2D Barcode Standards* go to the NACTP website at: *https://www.nactp.org/index.php/income-tax/government-liaison-committee/standards-a-guidelines.*

Section 7: Common errors

Common 1D testing errors:

• Incorrect text justification and formatting.
• Placement and alignment of letters and numbers in data entry box.
• Using commas and dashes in data entry fields.
• Missing data on form schedules and lines on variable tests and not reporting that these sections of the form are unsupported.
• For Forms IT-604 and IT-606: All taxpayers must complete the information below and then complete either Section 1 (pages 1 through 4) or Section 2 (pages 5 through 8). Do not complete both sections.

Common 2D testing errors:

• The vendor did not populate any data in a field that NYSDTF requested (this includes checkboxes).
• The vendor did not abide by 2D specifications provided by NYSDTF.
• The vendor populates data in a field on the PDF test form, but it is not in the barcode.
• The vendor did not include the 2D barcode(s) on test case submissions.
• The vendor did not abide by the capitalization of letters as required by this publication or specifications.