Unlocking Hidden Insights — Using APIs and Alteryx to Extend ONESOURCE Reporting Capabilities

Anthony Stola

Jordan Rash

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Anthony Stola

Experienced Manager

Anthony is a seasoned tax professional with over 13 years of experience in public accounting. As a leader in Grant Thornton's Tax Digital Consulting group, he specializes in helping organizations enhance their tax functions through the implementation of tax software and data analytics.

With a strong background in accounting for income taxes (ASC 740) and corporate compliance, Anthony leverages his technical expertise to bridge the gap between process, accounting needs, and technology solutions. He assists clients in selecting and implementing the right tools to streamline their tax operations, improve efficiency, and drive better decision-making.

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Jordan Rash

Experienced Manager

Jordan has over 18 years of experience in both public accounting and industry, having worked for various companies in the manufacturing and transportation sectors. During this time, he has focused on accounting for income taxes ("ASC 740") and the implementation and use of tax technology. Working extensively with accounting and finance, Jordan has tax sensitized general ledger information, integrated disparate tax systems resulting from acquisitions, and revised legacy tax processes to account for income taxes more efficiently.

Jordan has been with Grant Thornton for 2 years and during that time, has assisted his clients in assessing their current tax processes and identifying the best path forward towards a more efficient tax function. With numerous years of experience using multiple different tax technology solutions, he advises clients on how to better use existing tools, determine if there is a better software solution out there and provides ongoing support to clients for any issues that may arise with the tools ultimately decided upon.

Jordan is one of Grant Thornton's subject matter specialists for ONESOURCE direct tax solutions, a Certified Implementer for ONESOURCE Tax Provision and ONESOURCE State Apportionment. Jordan is a CPA in the State of Illinois, and he received both his Bachelor of Arts in Accounting and Master of Science in Accounting from Michigan State University.

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Objectives

- Identify the role and benefits of APIs in data extraction from ONESOURCE

- Identify strategies for building reports that address specific business needs

- Recognize methods to leverage exported data for deeper analysis and informed decision-making

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Agenda

- Tools that help with custom reporting

- What data do we want to access from ONESOURCE for custom reporting?

- How do we currently use ONESOURCE Data?

- How do we enhance our reporting?

- Benefit of leveraging APIs in the tax process

- What data can be access with ONESOURCE APIs?

- Use case examples

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Tools that help with custom reporting

What is a data transformation tool?

An Extract Transform & Load (ETL) tool is a software application used to extract data from various sources, transform it into a usable format, and load it into a data warehouse or data lake for analysis.

Benefits of Using ETL Tools:

- Data Integration: enable the integration of data from multiple sources, creating a unified view.

- Data Quality: help ensure data accuracy, consistency, and completeness.

- Data Governance: can support data governance initiatives by enforcing data quality standards.

- Automation: processes can be automated, reducing manual effort and improving efficiency.

- Scalability: can handle large volumes of data and scale as needed.
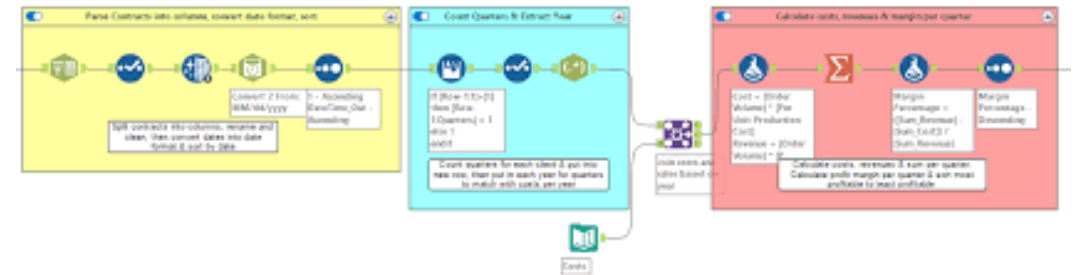
Tools that help with custom reporting

What is a Dashboard?

A dashboard is a visual tool that provides a snapshot of key performance indicators (KPIs) or data points in a clear and concise manner

Benefits of Using a Dashboard:

- Enhanced Visualization: Dashboards use charts, graphs, and other visual elements to make complex tax data easier to understand.

- Time-Saving: They provide a quick overview of tax information, reducing the need for in-depth analysis.

- Improved Decision-Making: Dashboards can help identify trends, potential issues, and areas for optimization.

- Enhanced Compliance: By tracking compliance metrics, dashboards can help ensure adherence to tax regulations.

Effective Tax Rate

	Current Year			Prior Year			Flux		
	GAAP	GAAP to IFRS	IFRS	GAAP	GAAP to IFRS	IFRS	GAAP	GAAP to IFRS	IFRS
Pre-Tax Book Income/(Loss)	$260,223,080	($15,123,572)	$245,099,508	$647,349,334	$100,453,635	$747,802,969	($387,126,254)	($115,577,207)	($502,703,461)
Federal Expense	$54,646,847	($3,175,950)	$51,470,897	$135,943,360	$21,095,263	$157,038,623	($81,296,513)	($24,271,213)	($105,567,727)
State Expense	($522,919)	($34,035,219)	($34,558,138)	$50,093,580	$2,547,223	$52,640,803	($50,616,499)	($36,582,442)	($87,198,941)
Permanent Items	$1,626,576	$0	$1,626,576	$16,715,763	$0	$16,715,763	($15,089,188)	$0	($15,089,188)
Other Deferred Movements	($24,609,879)	$89,283	($24,520,596)	($47,343,444)	$42,476,452	($4,866,992)	$22,733,565	($42,387,169)	($19,653,604)
Tax Adjustments	$30,785,908	$0	$30,785,908	($76,574)	$195,829,332	$195,752,758	$30,862,482	($195,829,332)	($164,966,850)
Total Tax Expense	$61,926,533	($37,121,886)	$24,804,647	$155,332,686	$261,948,270	$417,280,956	($93,406,153)	($299,070,156)	($392,476,309)

	Current Year			Prior Year			Flux		
	GAAP	GAAP to IFRS	IFRS	GAAP	GAAP to IFRS	IFRS	GAAP	GAAP to IFRS	IFRS
Federal Expense	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%
State Expense	-0.20%	225.05%	-14.10%	7.74%	2.54%	7.04%	13.07%	31.65%	17.35%
Permanent Items	0.63%	0.00%	0.66%	2.58%	0.00%	2.24%	3.90%	0.00%	3.00%
Other Deferred Movements	-9.46%	-0.59%	-10.00%	-7.31%	42.28%	-0.65%	-5.87%	36.67%	3.91%
Tax Adjustments	11.83%	0.00%	12.56%	-0.01%	194.94%	26.18%	-7.97%	169.44%	32.82%
Total Tax Expense	23.80%	245.46%	10.12%	24.00%	260.77%	55.80%	24.13%	258.76%	78.07%

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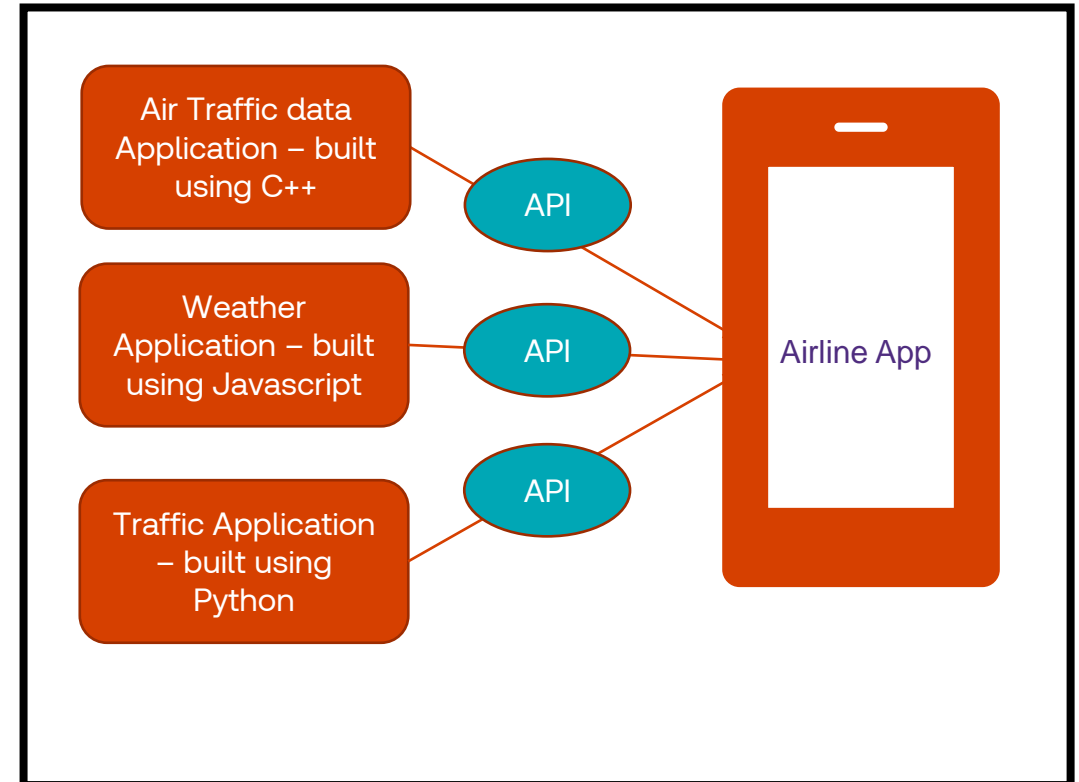The data in these tables was last refreshed on   September   5   2024

Tools that help with custom reporting

What is an API?

An API, or **Application Programming Interface**, is a set of rules that allows different software programs to communicate with each other.

- It acts as a middleman: APIs connect different software applications, allowing them to exchange data and functionality.

- It defines the rules of communication: APIs specify how one application can request information or services from another.

- It hides the complexity: APIs simplify the process of interacting with different software systems, making it easier for developers to build applications.

- It enables integration: APIs allow different applications to work together seamlessly, creating more powerful and innovative solutions.

Air Traffic data Application – built using C++

Weather Application – built using Javascript

Traffic Application – built using Python

API

API

API

Airline App

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How many of you are using these tools currently in your process?

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What data do we want to access from ONESOURCE for custom reporting?

Provision

- **Category File** – Includes the information about how your ONESOURCE instance is setup

- **Bridge Configuration** – Data mappings used in the bridge process

- **Number/Dataset File** – The numerical data that forms the basis for the tax provision calculations

- **Reports** – Access to the final tax-effected amounts

- **Workpaper Ribbon** – Provides various data points from your dataset

Income Tax

- **Charts** – Includes the information about how TAS connects to the locator

- **Organizer Data & Tax Return Data** - Access to the tax return data

- **E-File Data** – Access the XML data

- **TAS Workpapers** – Data exports out of TAS that contain calculated data from the organizer

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How do we currently use ONESOURCE Data?

Microsoft Excel

A common practice involves manually retrieving data from ONESOURCE and using Excel to transform it into the desired report format.

Pros:

- **Flexibility:** This approach allows for highly customizable reports tailored to specific needs.

- **Control:** Users have direct control over the data and can manipulate it as needed.

- **Accessibility:** Excel is a widely used tool, making it accessible to many users.

- **Simplicity:** For smaller datasets or simpler reports, manual extraction and transformation can be straightforward.

Cons:

- **Time-Consuming:** Manual processes can be time-intensive, especially for large datasets or complex reports.

- **Error-Prone:** Human error can lead to inaccuracies in data extraction, transformation, or reporting.

- **Inefficiency:** Manual processes can be inefficient and hinder productivity.

- **Scalability Issues:** As the volume of data or complexity of reports increases, manual methods can become unsustainable.

- **Lack of Standardization:** Manual processes can lead to inconsistencies in reporting and data quality.

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How do we enhance our reporting?

- **Time-Consuming:**
    - **ETL Tools:** Automated data extraction, transformation, and loading can significantly reduce manual effort.
    - **Dashboards:** Pre-built dashboards can provide immediate insights without the need for manual data manipulation.
- **Error-Prone:**
    - **ETL Tools:** Automated processes can minimize human error and ensure data accuracy.
    - **APIs:** APIs can directly connect to data sources, reducing the risk of manual errors.
- **Inefficiency:**
    - **ETL Tools:** Automated workflows can streamline processes and improve efficiency.
    - **Dashboards:** Dashboards can provide a centralized view of data, eliminating the need for multiple manual steps.
- **Scalability Issues:**
    - **ETL Tools:** ETL tools are designed to handle large datasets and scale as needed.
    - **Dashboards:** Dashboards can be configured to display data at different levels of granularity, accommodating varying data volumes.
- **Lack of Standardization:**
    - **ETL Tools:** ETL tools can enforce data quality standards and ensure consistency across different data sources.
    - **Dashboards:** Dashboards can present data in a standardized format, improving data accessibility and comparability.

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Benefits of Leveraging APIs in the Tax Processes

- **Increased Efficiency:** By automating data import and reconciliation processes, the ONESOURCE APIs eliminate the need for manual data entry, which can be time-consuming and error-prone. This saves valuable time and resources, allowing tax professionals to focus on more value-added activities.

- **Real-time Data:** Users can access real-time data, enabling them to make more informed decisions based on up-to-date information.

- **Flexibility:** Allows users to tailor them to their specific needs. This means that users can create custom reports, dashboards, and analytics that meet their unique business requirements.

- **Enhanced Data Accuracy:** By eliminating manual data entry and providing real-time data validation. This helps to reduce errors and inaccuracies in tax reporting.

- **Cost Savings:** By automating manual processes and increasing efficiency, the ONESOURCE APIs can help to reduce operational costs and increase profitability.

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What data is available through ONESOURCE APIs

ONESOURCE Tax Provision

- Currently with APIs we can:
    - Import and export the dataset and category files
    - Bridge in the Trial Balance
    - Certain Reports
        - Deferred Balances
        - Global Minimum Tax Inputs
        - Ending Balance Summary
        - Journal Entry

The reporting API is still under development, but access to the reporting calculated data will greatly increase custom reporting capabilities

Tax & Accounting

ONESOURCE TAX PROVISION CLASSIC **Import/Export API** Use this API to do exports and imports of their categories and numbers and to create back-up data, or add data to their instance. View API	ONESOURCE TAX PROVISION CLASSIC **ONESOURCE Tax Provision Classic: Journal Entries** Use this API to review approved Journal Entries reports and then either post or cancel them. View API	ONESOURCE TAX PROVISION CLASSIC **Bridge Import API** Use this API to create a Bridge Job, upload a file, verify the status of upload, and then analyze the Bridge results. View API
ONESOURCE TAX PROVISION CLASSIC **Access Management API** The Access Management API allows the ONESOURCE Tax Provision users to retrieve a list of roles that are available in their instance. ... The users will see the ID, Name and Description of their roles. View API	ONESOURCE TAX PROVISION CLASSIC **ONESOURCE Tax Provision Classic: Units API** Use this API to get the details of the units on your instance. View API	ONESOURCE TAX PROVISION CLASSIC **Reports API** Use this API to generate reports, check the status of the job and get the details of the report in JSON format. View API
ONESOURCE TAX PROVISION CLASSIC **ONESOURCE Tax Provision Classic: Subconsolidations** Use this API to review and manipulate subconsolidations in your instance. View API	ONESOURCE TAX PROVISION CLASSIC **ONESOURCE Tax Provision Classic: Instance and System Parameters API** Use this API to retrieve a list of all the instances you have access and the system parameters for each instance. View API	ONESOURCE TAX PROVISION CLASSIC **ONESOURCE Tax Provision Classic - Datasets** Use this dataset to retrieve and manipulate information related to your datasets. View API

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What data is available through ONESOURCE APIs

ONESOURCE Income Tax

- Currently with APIs we can:
  - Import or Export from the organizer or tax return
  - Manage
    - Binder information
    - E-File Process
    - Charts
  - Print
    - Returns
    - E-File XML
  - Retrieve overrides and diagnostics

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How many of you are using the APIs?

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Provision Reporting

Benefits Building of Custom Reports

- Generate provision reports tailored to specific needs and regulatory requirements

- Deliver management-ready dashboard with drill-down capabilities for deeper analysis

- Ensure data integrity and accuracy through data validation process

Overcome Reporting Limitations:

- Current out of the box reporting offers standard presentation that may not be suitable for all reporting requirements

- Limited ability to understand the calculation behind a particular amount on the canned reports

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Connecting the Trial Balance Bridge Process with ONESOURCE Tax Provision

Current State Future State

How we did it

- **Extract:** Trial Balance from ERP system
- **Load:** Alteryx with provision dataset data and categories via the ONESOURCE Tax Provision API
- **Transform:** Trial balance into bridge csv
- **Analyze:** Compare trial balance to ONESOURCE data to identify action items
- **Push:** Bridge configuration changes into OTP via the ONESOURCE Tax Provision API
- **Push:** The trial balance into OTP via the ONESOURCE Tax Provision API

Benefits

- Provides tax departments with live insights as it pertains the trial balance bridge process
- Time savings reducing the amount of manual work
- With multiple trial balance iterations, this allows the tax department to manage by exception throughout the provision process
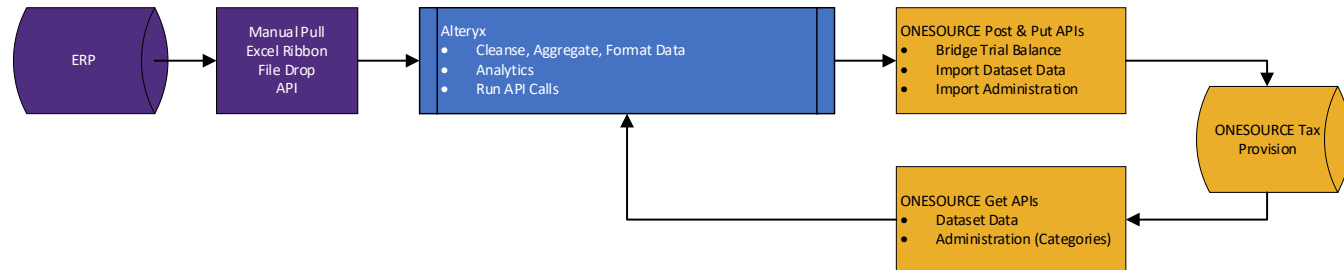
Enhancing State NOL Process with APIs

Generate Tailored State NOL Reports and Calculations

- Review available pre-tax state NOL

- Generate summary for inclusion in footnote

- Apply lapsing schedule for expirations and update provision

Overcome Reporting Limitations:

- Only pre-tax amounts shown

- Report views limited to consolidated or unit detail

- No ability to automate NOL expiration

ONESOURCE Tax Provision Net Operating Losses

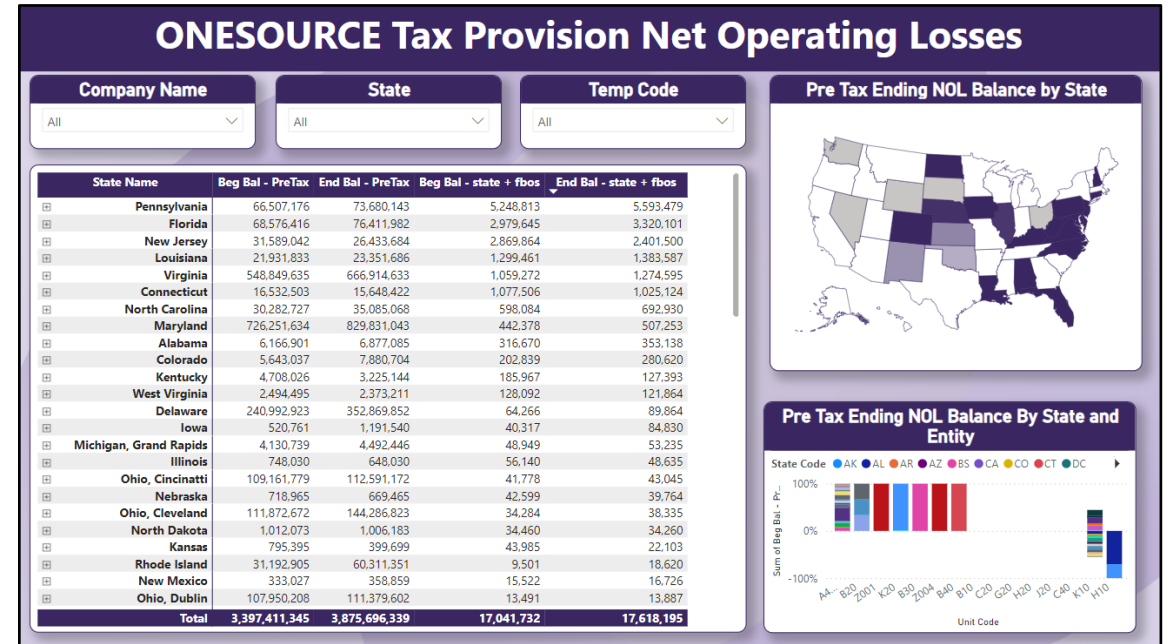| State Name	Beg Bal - PreTax	End Bal - PreTax	Beg Bal - state + fbos	End Bal - state + fbos
Pennsylvania	66,507,176	73,680,143	5,248,813	5,593,479
Florida	68,576,416	76,411,982	2,979,645	3,320,101
New Jersey	31,589,042	26,433,684	2,869,864	2,401,500
Louisiana	21,931,833	23,351,686	1,299,461	1,383,587
Virginia	548,849,635	666,914,633	1,059,272	1,274,595
Connecticut	16,532,503	15,648,422	1,077,506	1,025,124
North Carolina	30,282,727	35,085,068	598,084	692,930
Maryland	726,251,634	829,831,043	442,378	507,253
Alabama	6,166,901	6,877,085	316,670	353,138
Colorado	5,643,037	7,880,704	202,839	280,620
Kentucky	4,708,026	3,225,144	185,967	127,393
West Virginia	2,494,495	2,373,211	128,092	121,864
Delaware	240,992,923	352,869,852	64,266	89,864
Iowa	520,761	1,191,540	40,317	84,830
Michigan, Grand Rapids	4,130,739	4,492,446	48,949	53,235
Illinois	748,030	648,030	56,140	48,635
Ohio, Cincinatti	109,161,779	112,591,172	41,778	43,045
Nebraska	718,965	669,465	42,599	39,764
Ohio, Cleveland	111,872,672	144,286,823	34,284	38,335
North Dakota	1,012,073	1,006,183	34,460	34,260
Kansas	795,395	399,699	43,985	22,103
Rhode Island	31,192,905	60,311,351	9,501	18,620
New Mexico	333,027	358,859	15,522	16,726
Ohio, Dublin	107,950,208	111,379,602	13,491	13,887
Total	**3,397,411,345**	**3,875,696,339**	**17,041,732**	**17,618,195**

Using APIs to Monitor the E-File Process

Build a Report that Validates XML matches Printed Return

- We want to do this because currently we are manually comparing large XML files which is tedious and time-consuming.

- The automation of this process not only create efficiencies but can also lead future automation.
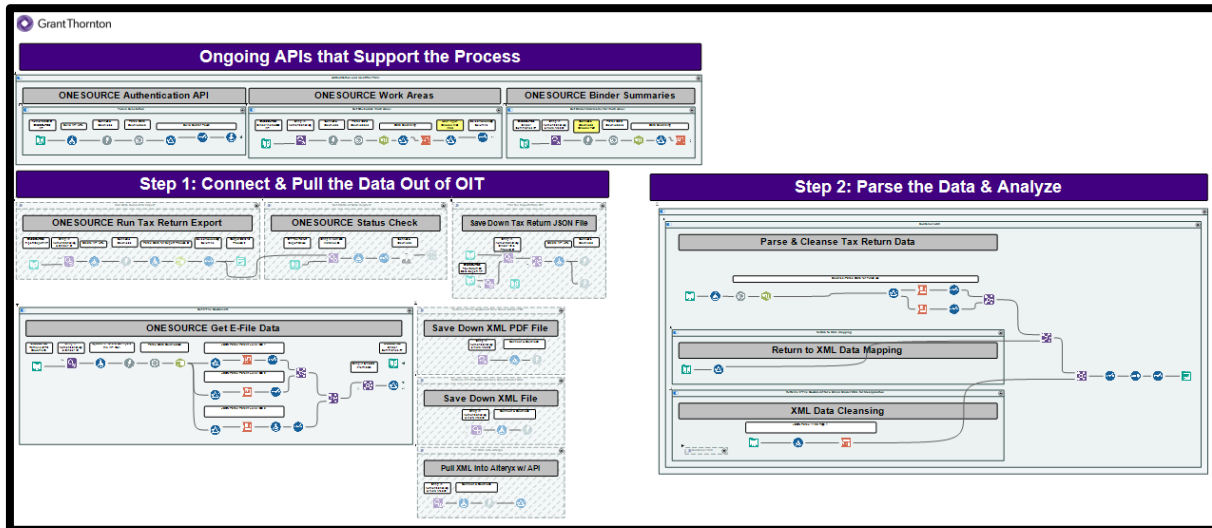
Tax Return vs E-File XML

Return Page Number	Return Line Number	Return Description	Tax Return	XML	Difference
1	1a	Gross receipts or sales	40,713,701	40,713,701	0
1	1c	Balance. Subtract line 2 from line 1c	40,713,701	40,713,701	0
1	2	Cost of goods sold (attach Form 1125-A)	39,389,182	39,389,182	0
1	3	Gross profit. Subtract line 2 from line 1c	1,324,519	1,324,519	0
1	5	Interest	40,306	40,306	0
1	10	Other income (see instructions - attach statement)	7,908,081	7,908,081	0
1	11	Total Income. Add lines 3 through 10	9,272,906	9,272,906	0
1	13	Salaries and wages (less employee credits)	2,291,458	2,291,458	0
1	14	Repairs and maintenance	4,099	4,099	0
1	16	Rents	161,456	161,456	0
1	17	Taxes and licenses	657,778	657,778	0
1	20	Depreciation from Form 4562 not claimed on Form 1125-A or elsewhere on return (attach Form 4562)	600,000	600,000	0
1	22	Advertising	74,464	74,464	0
1	26	Other deductions (attach statement)	1,986,159	1,986,159	0
1	27	Total decustions. Add lines 12 through 26	5,775,414	5,775,414	0
1	28	Taxable income before net operating loss deduction and special deductions. Subtract line 27 from line 11	3,497,492	3,497,492	0
1	30	Taxable income. Subtract line 29c from line 28. See instructions	3,497,492	3,497,492	0
1	31	Total tax (Schedule J, Part I, line 11)	734,473	734,473	0
1	34	Estimated tax penalty. See instructions. Check if Form 2220 is attached	27,318	27,318	0
1	35	Amount owed	761,791	761,791	0

Questions?

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Wrap-up

Please remember to complete your session evaluation! We appreciate your feedback.

If we were not able to answer your question during the session, please visit with our onsite Support team.

Keep the momentum going by engaging with Thomson Reuters staff and your peers in the SYNERGY Square.

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Thank you!

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