

Wisconsin Dept. of Revenue

Tax Compliance Infrastructure

Data Warehouse Project

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Project Beginnings

Corporate Data Warehouse



Upside:

- Contractor built with a quick project turnaround
- Successful audit projects

Downside:

- Difficult maintenance efforts

Project Turning Point

Developed Business Plan for Individual Data Warehouse



Development Decision

- **Expand current corporate project**
- **Contract out new project**
- **Build in-house**

Individual Data Warehouse

Build Data Warehouse In-House

- **Integrated team across IT and business units**
- **Business users control what data to load and surface from the data warehouse for reporting**
- **Phased approach to provide value along the way**
- **Keeps technical and business knowledge in-house**
- **SAS platform selected**

Individual Data Warehouse

Phased Approach

- **Phase 1 – WI tax returns, IRS individual tax returns, and electronically filed W-2 forms**
 - ✓ **Users received five hand-coded reports for audit identification and two look-up reports**
- **Phase 2 – IRS informational returns**
 - ✓ **Users received end-user query capability and portal access**

Individual Data Warehouse

Phased Approach

- **Phase 3 – Vehicle title, drivers license and registration information**
 - ✓ **Legislative direction authorizing other agencies to assist in tax collection**
 - ✓ **MOU secured with Department of Transportation**
 - ✓ **Additional end-user query capability**

Individual Data Warehouse

Phased Approach

- Phase 4 – Sales tax, corporation returns, IRS business tax data, unemployment insurance employer records
 - ✓ Integration of corporate and individual data warehouses
 - ✓ six hand-coded reports
 - ✓ Enhanced ad hoc capability

Iterative Approach

Work takes place on multiple phases at one time:



- Completion cycle of last phase
- Development of current phase
- Requirements of next phase
- On-going maintenance efforts to completed phases

Tax Compliance Infrastructure

Advantages of the Data Warehouse

- **Matching individuals and entities allowing reports across data sources**
- **Summarizing various data to the level of tax return information for reporting purposes**
- **Identifies and tracks relationships embedded in existing data**
- **Provides ability to track non-filer activity**

Tax Compliance Infrastructure

More Advantages of the Data Warehouse

- **Continually modifying based on user input**
- **More useful with each additional data source available**
- **Useful for many bureaus – Audit, Compliance, Research & Policy, etc.**

Data Warehouse Reports

Income and Asset report

- All taxpayer information in one location

Current Financials

- Sources for bank or employer collection actions

Address Report

- Complete address history across data sources

Data Warehouse Reports

Multi-Year Compare

- Shows data across sub-set of years

Relationship Look-up

- Research relationships of pass-through entities

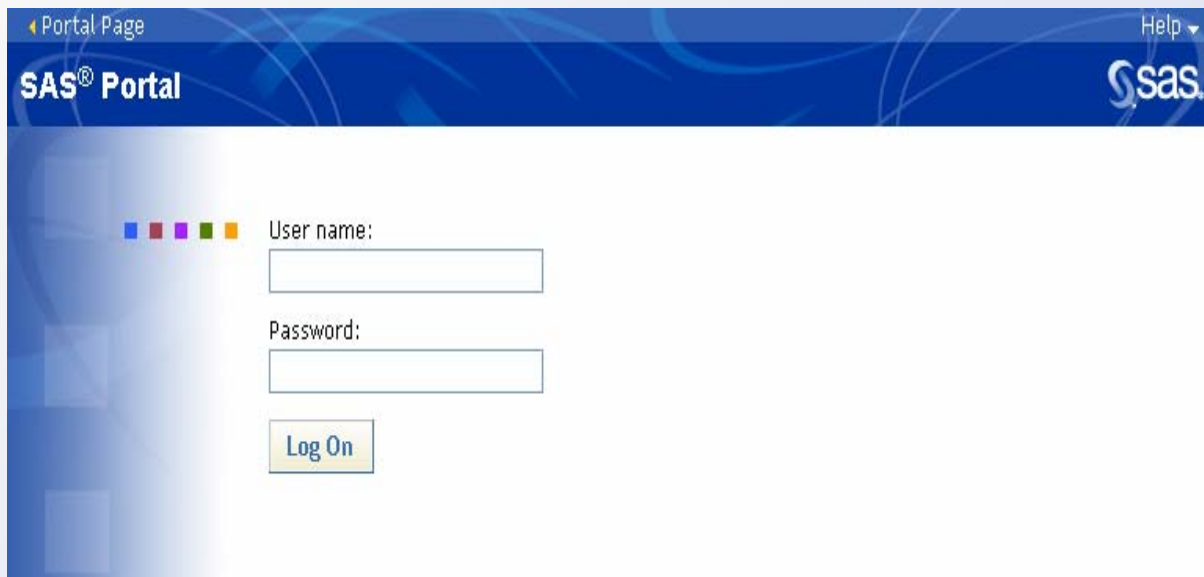
Ad Hoc Capability

- Querying ability for audit selection

Data Warehouse Functionality

Security Measures

- Secure user name and password to access
- Session timeout when inactive
- Software to track usage

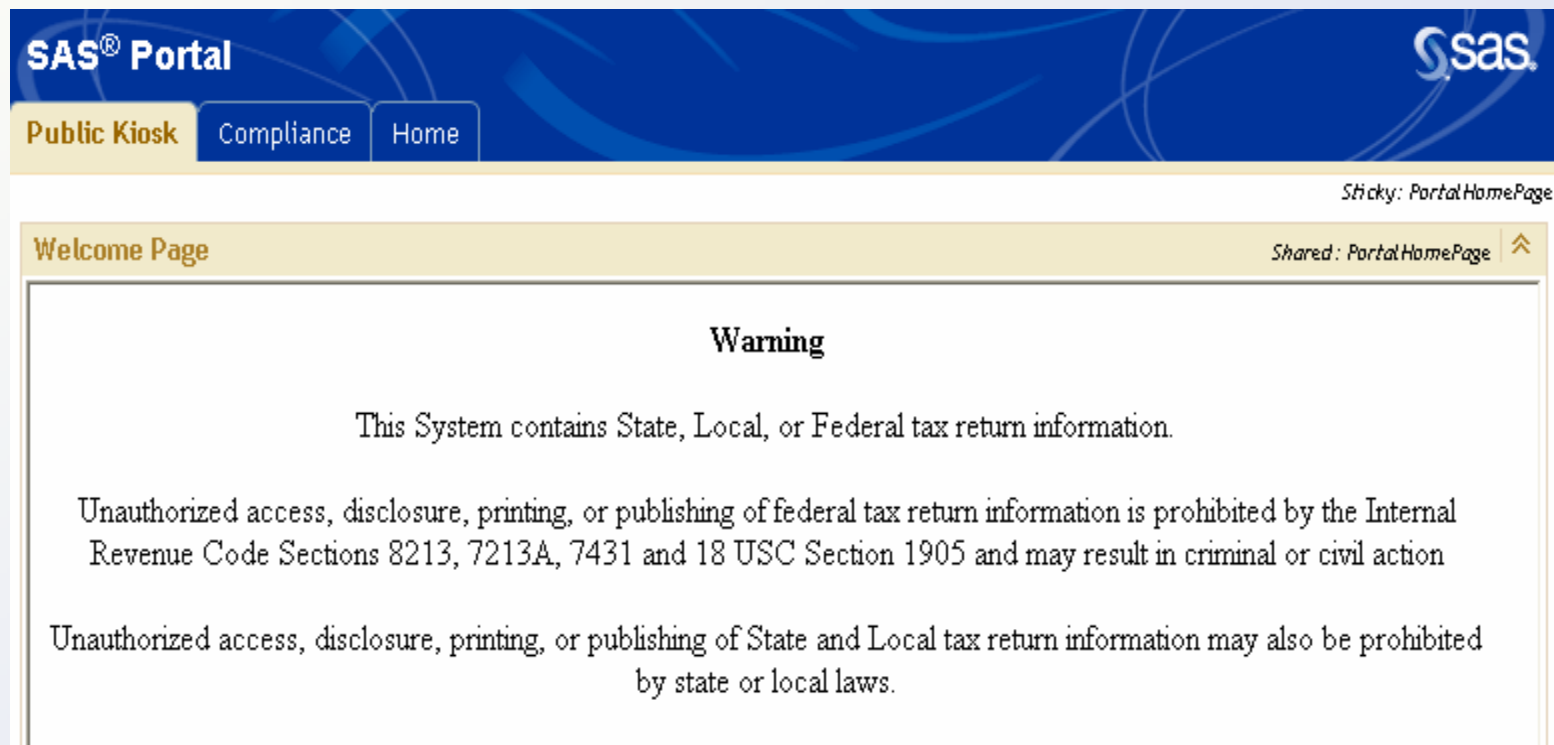


The screenshot shows the SAS Portal login interface. At the top, there is a blue header bar with the text "Portal Page" on the left and "Help" with a dropdown arrow on the right. Below the header, the "SAS® Portal" logo is on the left and the "sas" logo is on the right. The main content area is white and contains a login form. To the left of the form is a vertical bar with five colored squares (blue, red, purple, green, yellow). The form consists of two text input fields: "User name:" and "Password:". Below the password field is a "Log On" button.

Data Warehouse Functionality

Security Measures

- Authorization disclosure
- Control of user access to data and system resources



The screenshot displays the SAS Portal interface. At the top left, it says "SAS® Portal" and at the top right is the "sas." logo. Below the logo, there are navigation tabs: "Public Kiosk" (highlighted in orange), "Compliance", and "Home". On the right side of the header, it says "Sticky: PortalHomePage". Below the header, there is a yellow bar with "Welcome Page" on the left and "Shared: PortalHomePage" with an upward arrow icon on the right. The main content area is a white box with a black border containing a warning message:

Warning

This System contains State, Local, or Federal tax return information.

Unauthorized access, disclosure, printing, or publishing of federal tax return information is prohibited by the Internal Revenue Code Sections 8213, 7213A, 7431 and 18 USC Section 1905 and may result in criminal or civil action

Unauthorized access, disclosure, printing, or publishing of State and Local tax return information may also be prohibited by state or local laws.

Data Warehouse Functionality

Audit User Portal

The screenshot displays the Audit User Portal interface. At the top, there is a navigation bar with tabs for "Public Kiosk", "Audit", and "Home". The "Audit" tab is currently selected. In the top right corner, the text "Sticky: SAS_AUDIT_BI_CLIENT" is visible.

The main content area is organized into several sections, each with a title and a "Shared: PortalHomePage" link:

- Audit Reports**: Includes a "Click here to refresh collection." link and a list of reports:
 - Duplicate Refund Identification.srx Audit Report 4
 - Non-Filer Compare WI Withholding to Wages on W-2's.srx Audit Report 1
 - Taxpayers Filing Status Different for Federal and WI.srx Audit Report 6
 - Under-Reporters W-2 Wages Greater Than GR Total Wages.srx Audit Report 3
 - WI Withholding Different than Claimed on Reports.srx Audit Report 5
- Audit Writeback**: Includes a "Click here to refresh collection." link and a list of reports:
 - SP Audit Writeback
 - SP Audit Writeback FEIN1
- Compliance Reports**: Includes a "Click here to refresh collection." link and a list of reports:
 - Compliance Current Financials.srx Compliance Current Financials
- Acceptance Testing Area**: Includes a "Click here to refresh collection." link and a list of reports:
 - Multi-Year Return Compare
- Web Report Studio**: Includes a "Click here to refresh collection." link and a "Link to Web Report Studio" link.
- Data Warehouse Documentation**: Includes a "Click here to refresh collection." link and a "SAS How To Instructions" link.
- Revenue Shared Reports**: Includes a "Click here to refresh collection." link and a list of reports:
 - SP Indv Asset Report
 - SP Indv Address Report
 - SP Busn Address Report
 - Dependent_LookUp.srx
 - DW Relationship Look Up.srx
 - W2 Info by Business.srx
 - Vehicle History Report.srx
 - K-1 by Business 1065 1120s 1041.srx
 - Stocks and Bonds from 1099-Bs.srx
 - DW Data Element Description Search.srx
 - DW Data Element Search.srx
 - IRMF 1099 by Business Payee.srx

Data Warehouse Functionality

Compliance User Portal

Public Kiosk **Compliance** Home

Sticky: SAS_COMP_BI_CLIENT

Compliance Reports *Shared: PortalHomePage*

[Click here to refresh collection.](#)

[Compliance Current Financials.srx](#)
Compliance Current Financials

Revenue Shared Reports *Shared: PortalHomePage*

[Click here to refresh collection.](#)

- [SP Indv Asset Report](#)
- [SP Indv Address Report](#)
- [SP Busn Address Report](#)
- [Dependent_LookUp.srx](#)
- [DW Relationship Look Up.srx](#)
- [W2 Info by Business.srx](#)
- [Vehicle History Report.srx](#)
- [K-1 by Business 1065 1120s 1041.srx](#)
- [Stocks and Bonds from 1099-Bs.srx](#)
- [DW Data Element Description Search.srx](#)
- [DW Data Element Search.srx](#)
- [IRMF 1099 by Business Payee.srx](#)

Data Warehouse Documentation *Shared: PortalHomePage*

[Click here to refresh collection.](#)

[SAS How To Instructions](#)

Development Reports *Shared: PortalHomePage*

[Click here to refresh collection.](#)

- [Compliance Current Financials DEV.srx](#)
Foundation/BIP Tree/ReportStudio/Shared/Reports/Development
- [SP Indv Asset Report](#)
Foundation/BIP
Tree/ReportStudio/Shared/Reports/StoredProcesses/Development

Acceptance Testing Area *Shared: PortalHomePage*

[Click here to refresh collection.](#)

- [Multi-Year Return Compare](#)
- [Multi-Year Schedule C Compare](#)
- [Multi-Year Schedule F Compare](#)

Data Warehouse Functionality

This section contains representations of the reports available within the Data Warehouse and does not include actual taxpayer information.

Execution Options

Income and Asset
Report

Multi-Year Compare

Multi-Year Schedule C

Current Financials

Taxpayer Search

Top N:

SSN:

XXX-XX-XXXX

Last Name:

First Name:

Drivers
License:

Data Warehouse Reports

SAS Web Report Studio • Compliance Current Financials



Report ▾

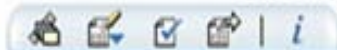
Edit Report

View Report

How Do I? ▾

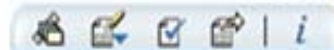
Refresh Data

Current Address Info



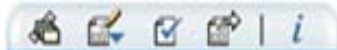
Ssn	Name	Address	Address2	City	State	Zip	Zipext
000000008	John Smith	14 Quartz Ln		Bedrock	VM	00001	0003

DOT Financial Info



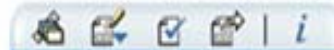
Dot Date ▲	Dot Lender Id	Dot Lender Nm ▼	Dot Lender Address	Dot Lender City	Dot Lender State	Dot Lender Zip
03/30/2007	999999	ABC Lending Corp.	456 Main St	Bedrock	VM	00001

W2 Employment Information



Empr Fein	Empr Name	Empr Name2	W2 Source	W2 Yr
000000002	ABC Building Corp		W2 Electronic	2004

IRMF 1099 Interest Info



Irmf Fein	Irmf Payer	Irmf Payer2	Irmf Source	Irmf Yr
999999999	ABC Banking		IRMF 1099 Int	2004

Data Warehouse Reports

Taxpayer Address Search Report Run on 12/29/2006 at 11:31 AM

Search Key

Social Security Number

999-99-9999

Primary Customer Information

Name

Jane Doe

Address

123 Any Street
Any City, VA , 99999-9999

Date of Source Update

Source Date	01/01/2005
Address Info Source	W2
Address Indicator	Display all 9 addresses

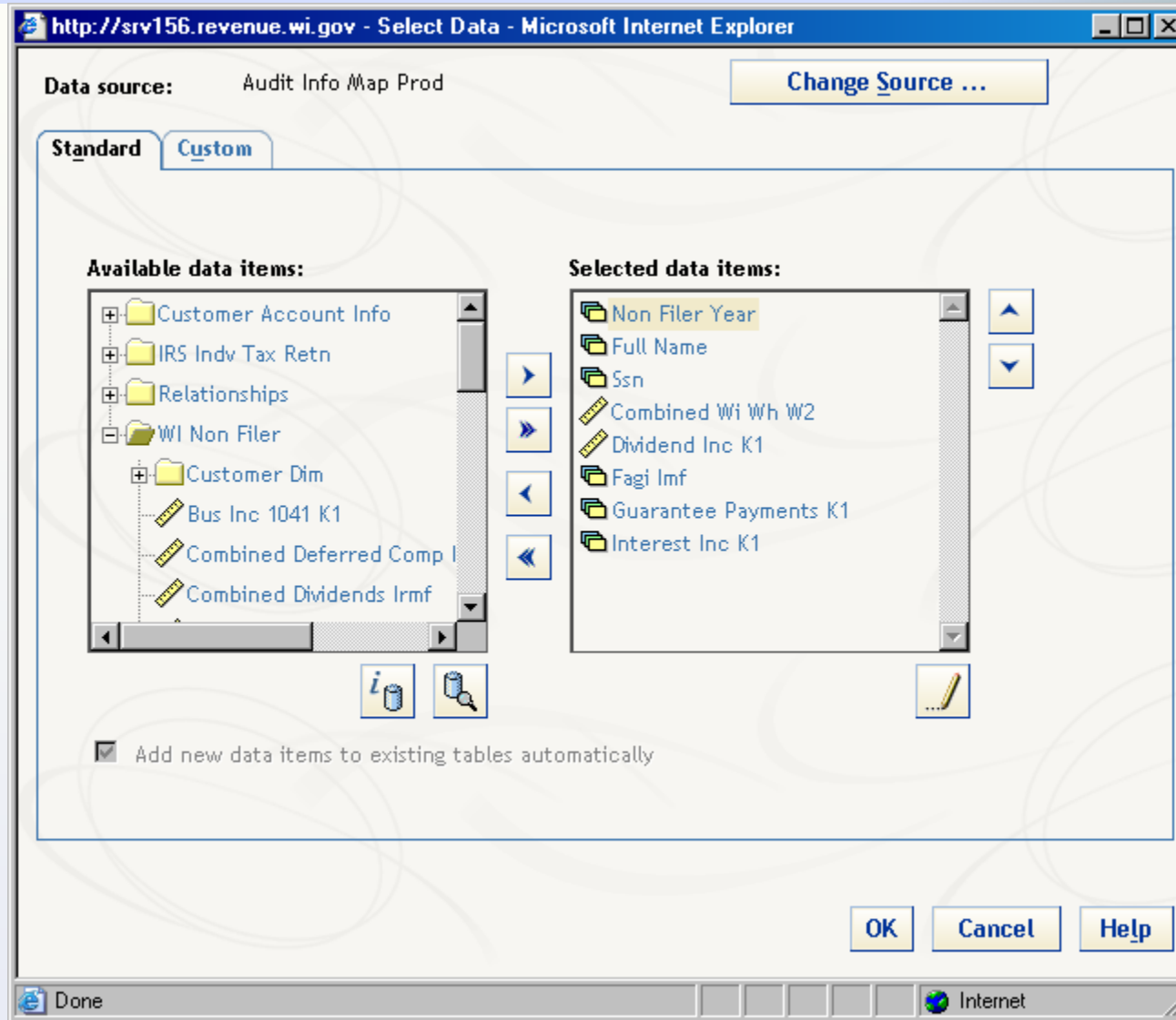
Hide These Addresses

Date	Source	FEIN SSN Match Only Ind	Uncleansed Name	Address	City	State	Zip	Zip4
01/01/2005	W2	.	Name 1	.	.	VA	.	.
05/04/2004	GR	.	Name 2	1234 Any Street	Any City	VA	99999	0000
01/01/2004	W2	.	Name 3	.	1555 Any Street	Any City	VA	99999
01/01/2003	W2	.	Name 4	1234 Any Street #5	Any City	VA	99999	.
01/01/2002	W2	.	Name 5	1234 Any Street #8	Any City	VA	99999	.
06/25/2001	GR	.	Name 6	1234 Any Street	Any City	VA	99999	0000
01/01/2001	IRMF	.	.	1234 Any Street	Any City	TX	99999	0000
01/01/2001	W2	.	Name 7	.	.	VA	.	.
01/01/2000	W2	.	Name 8	1234 Any Street	Any City	VA	99999	.

Profile

Birth date	.
Decedent Indicator	.
Date of death	.

Ad Hoc Query Capability



WI Warehouse Success

- **Data warehouse steering team providing vision & direction**
- **Phased approach maximizing efficiencies and adding value**
- **Focus on business user needs fostering customer service environment**
- **Dynamic environment allowing for continuing evolution of useful reports and business projects**

WI Warehouse Success

Workload and time savings

- **Consolidated IRS informational data with totals**
- **Ability to import data and extract files for projects**

Audit projects

- **Merger of warehouses will help identify non-filers**
- **Project has identified \$19 million in assessments by comparing Form K-1 and Form 5S**
- **Recycling surcharge project has already assessed \$400,000 and collected \$250,000**

Tax Compliance Infrastructure

Summary

- **Individual tax data warehouse infrastructure is in place and end-users are impressed with query and reporting capabilities**
- **Integration of individual and corporate warehouses to further leverage data**
- **Info center developed to bring users and developers together in dynamic environment**

Tax Compliance Infrastructure

A circular graphic with a grid pattern, overlaid on a background of a modern building and a green landscape. The grid is composed of horizontal and vertical lines, creating a mesh-like effect. The background shows a tall, modern building with a glass facade and a green landscape with hills and a road. The overall color palette is dominated by blues, greens, and greys.

Questions?